

LABOUR IN INDIAN INDUSTRIES

*Thesis approved for the Degree of Doctor of Science (Economics)
in the University of London.*

BY

G. M. BROUGHTON, O.B.E., M.A.

HUMPHREY MILFORD
OXFORD UNIVERSITY PRESS
LONDON BOMBAY CALCUTTA MADRAS

1924

TABLE OF CONTENTS

CHAPTER I

GENERAL SURVEY

Introduction. Normal conditions in an Indian village. Subsidiary employment for agriculturists. Industrial organisation of a village. Urban hand industries. Rise of modern industrial conditions. Comparison with England. State efforts for industrialisation. Development of Railways. Growth of Towns. Interaction of Industrialisation and improved agriculture. Causes of migration of Labour from Agriculture to Industries. Other avenues of employment. Growth of Factories and Mines.

CHAPTER II

COURSE OF THE INDUSTRIAL REVOLUTION IN INDIA

Causes of slow development of India as compared with England. Growth of Power Industries. Development of coal and iron mines. Resultant changes in export trade. Growth of Towns. Effects of Industrial Revolution (a) on Rural Life; (b) on Agriculture, (c) on hand industries. General, social and intellectual effects.

CHAPTER III

THE SOURCES OF LABOUR SUPPLY

Introductory. I. Bengal. Geographical features; Typical villages; Principal castes; Village occupations; Extent of rural industries, Rigours of caste Government. Trade Guilds. II. Bombay. III. Bihar and Orissa. IV. United Provinces. V. Madras. VI. Central Provinces. VII. Punjab and Assam.

CHAPTER IV

THE DEMAND FOR LABOUR

The scope of the chapter. I. Bengal. Principal organised industries. Districts which supply the Labour. Causes of the scarcity of local labour. Proportion of different castes employed in coal mines, jute mills and tea gardens. II. Bombay, III. Bihar and Orissa; IV. United Provinces, V. Madras; VI. Central Provinces, VII. Assam, VIII. Punjab.

CHAPTER V

CONDITIONS OF EMPLOYMENT

Introductory Effects of Industrial Revolution in England Movement to counteract effects. Effects of Industrialisation in India Comparison between conditions in England and India. Detailed study of conditions of employment in (a) Bombay, (b) Bengal, (c) Cawnpore, (d) Nagpur, (e) Madras Conditions in organised industries & other than factories (a) coal mines, (b) Tea estates

CHAPTER VI

AMELIORATIVE MEASURES

Introductory. A State Action — Factory Legislation ; International Labour Conference, 1919 ; probable trend of future Legislation. Recommendations of International Labour Conference, 1921. Factory Inspection. Mines Legislation Workmen's Compensation Proposed Legislation for (1) Trade Unions, for (2) Arbitration and Conciliation Reports of Bengal and Bombay Committees on Industrial Disputes. Public Health Administration. Education. Housing B Action by Employers. Intra-mural and extra-mural welfare activities C. Action by Labour , Formation of Unions D. Action by Social Agencies. Conclusion

FOREWORD

This is a book dealing with some of the vital problems that are facing industrialists in India. It appeals therefore not only to those of the general public who are interested in the welfare of the working classes but also to managers who control the workers, to legislators who have to consider and pass measures to improve the conditions of labour, and to social workers. It should, further, be found useful by students of Economics in the Indian Universities. For a knowledge of present-day conditions in England the author has drawn on the experience obtained while serving as an investigator under the Board of Trade between 1910 and 1912 and as a Welfare Officer in the Ministry of Munitions from 1916 to the end of the war. As for the conditions in India, the views and conclusions set forth in this book are based on inquiries and observations conducted personally throughout India during the author's employment as Adviser in the Labour Bureau of the Industries Department of the Government of India from July 1920 to December 1922. Extensive use has been made of various published official reports and of other standard works on Indian conditions.

~~CHAPTER I~~

GENERAL SURVEY

The Industrial Revolution which is now in progress in India is gradually bringing about vital social and economic changes.

Introduction and scope of subsequent Chapters The growth of organized industries and their effect on the lives of the people are the main subjects with which this book is concerned. While the change from home-production to large-scale production was effected in England in a comparatively short space of time, the peculiar conditions that obtain in India make it impossible for any radical transformation to take place rapidly. Three-fourths of the population are still dependent on agriculture for their livelihood. Though they still live in much the same way as they have done for centuries their mode of existence has, as a matter of fact, been very appreciably affected by these changes. It is true that only comparatively small numbers have migrated into the towns, but the constant interchange that is taking place between the towns and villages affects the lives of many who never have visited the towns themselves. The outward appearance of the villages has however changed but little: the rural population still live generally in mud huts. The inhabitants are mainly occupied in agriculture or cattle-breeding and only a comparatively small number engage in village industries. The caste-system prevails and determines to a large extent both the kind of occupation that a man may pursue and also his social status. Religion still continues to prescribe the ceremonies connected with the celebration of festivals, marriages, births and deaths according to immemorial usage. But superimposed on this social structure and gradually striking down to its very roots are the changes which are coming into being as a result of the Industrial Revolution.

There can be no doubt that India's material wealth is steadily increasing and that her national status is gradually rising. But while there are undoubtedly forces at work which are helping in this direction, there are also tendencies to be observed which

may do irreparable harm to her working population if they are not checked in time. An examination of the social and economic changes that are taking place should reveal these tendencies. Side by side with a study of the development of industries there must go an analysis of the environment to which workers have been accustomed if one is to understand their difficulties in adapting themselves to wholly different conditions. The measures that have been adopted in Western countries to ameliorate the conditions of the working classes, arising from a process of rapid industrialization, should be of some use to India in helping to solve the somewhat similar problems with which she is now confronted.

This chapter contains a brief outline of the conditions obtaining in the villages from which the labour is drawn, the industries for which the labour is required and some of the causes of the migration of labour from agriculture to industries. Subsequent chapters will describe in greater detail the sources of labour supply, the industries which are creating the demand for labour, the conditions of employment in organized industries and the measures that are now being adopted or may be adopted in India to improve these conditions.

Before describing the rise of modern industrial conditions in India I propose to give a brief sketch of the land system that

**Normal conditions
in an Indian village** obtains in the different provinces in India.

In Bengal, Bihar and the United Provinces the landlord system prevails and the holdings are cultivated by tenants, some with definite tenant rights and some without, but all paying rent to the landlord, who, in his turn, is assessed to revenue by the State. In Bengal and Bihar the revenue was fixed once for all over a hundred years ago on lands then cultivated; in the United Provinces it is revised every thirty years. In the Punjab, landlords are smaller men who in many cases cultivate their own possessions. In Bombay and the greater part of Madras, the State makes direct arrangements with the occupants of the holdings, who may themselves cultivate their holdings or may sublet them.¹ In all the Provinces some cultivators, in addition to utilising the

¹ For a detailed study of conditions in a number of villages in Madras Presidency, see University of Madras Economic Studies edited by Dr. Gilbert

services of all the members of their own families including women and children, have to employ extra labour during the busy sowing and harvesting seasons. But often the holding is tiny in size and the occupant as well as the members of his family find it necessary to hire themselves out during their spare hours to the more prosperous neighbours. Owing to the rapid increase in population and the competition for land there is now in many areas a numerous class of landless labourers. They are allowed to live in the villages on the understanding that their services will be available to the cultivators in the villages for wages in cash or kind. The economic position of this last class varies according to the agricultural season or the needs of the tenants. Where agriculture is prosperous as in the Punjab, the labourer earns good wages. Where the holdings are small and the pressure on the soil is great, as in Bihar or the eastern districts of the United Provinces, the wages of the landless labourer are low.

In the North of India the members of some families and particularly women, besides doing agricultural work, engage, during their spare hours and at slack times, in hand spinning and occasionally in cotton-weaving.¹ They obtain the raw cotton either from their own fields or as part payment for work they have done in a neighbour's field² Old fashioned spinning-wheels and handlooms are still in use. Attempts have been made

Subsidiary employment for agriculturists Slater Vol. I entitled "Some South Indian Villages." A large minority of the *ryots* or '*pattadars*', who hold their land directly under the Government, do not cultivate the land themselves, but let the whole or the greater part of their holdings to cultivating sub-tenants (see particularly pages 235-237). Also in some parts of the Province, especially in the North, the settlement is with landlords as in North India. These landlords, termed *zemindars* are like those of Bengal and Bihar under '*permanent settlement*,' i.e., whatever changes may take place in prices or other economic circumstances, the amounts due from them remain unaltered as when originally fixed in the beginning of the nineteenth century. But the Madras Zemindari system differs in one respect from that of Bengal, in that the Zemindars have generally taken advantage of an optional act, and made their estates indivisible, and inherited by the eldest son; whereas in Bengal, Zemindaris are divided according to Hindu or Moslim law.

1 Census of India 1921 United Provinces, Vol. XVI Part II, Table XVII Part II, page 385.

2 In the next paragraph in describing the artisans of the village I have referred to families whose principal occupation is weaving and not agriculture.

to introduce improved methods and have met with some measure of success, though the majority of workers are very conservative and will not readily change the instruments which have been in use for centuries. There are also other forms of subsidiary employment. Thus in Eastern Bengal fishing takes up a considerable part of the time of the village cultivator. The United Provinces and the Punjab are noted for their cattle and horse-breeding. *Gur* making or the production of unrefined sugar from sugar-cane occupies large numbers and the methods in use are only slightly different from those that obtained before machinery was known. Basket-making and the making of rope and string are still carried on by primitive methods.

Besides those whose principal occupation is agriculture, there are a certain number of village artisans who pursue the traditional occupations in which their families

Village artisans

have engaged for centuries. Thus, for example, there are certain castes who are mainly engaged in handloom weaving and who pursue the methods that have been handed down from father to son, generation after generation. There are others who are engaged in supplying local wants which before the time of railways could be supplied in no other way. The *Chamars* for instance make most of the leather bags used for watering the fields and the other leather articles in daily use. There is the primitive blacksmith who with a small forge and leather bellows makes cart wheels and the shoes for the cattle. There is also in every village a small shop-keeper or *bania*, whose stock in goods consists mostly of articles not produced in the village such as salt, tobacco, matches and nowadays kerosine oil. In most cases he develops into a money-lender or the village banker.

The industrial organization of these villages is extremely simple. Much is done by barter and in some parts the old

Industrial organisa- tion of the village

custom still holds good and wages are paid in kind and not in cash. The prosperity of all the inhabitants is largely dependent on the harvest, for unless the agriculturists succeed in marketing a surplus produce and for good prices they cannot purchase the wares made by the artisans. But the artisans are themselves to a certain extent agriculturists as they are given a small area of land in return for which they perform certain services.

These primitive methods of payment in kind or by assignment of land are however fast disappearing and the substitution of cash payments is bringing about the economic independence of many who for hundreds of years have been dependent on the more fortunate possessors of land.

Prior to the growth of the modern towns, in India town life as a rule centred round a Court or the head-quarters of a provincial or district governor. In a few

Urban hand-industries instances, such as Benares and Muttra, the town owed its origin to the sacredness of

the locality, which attracted pilgrims and sojourners from all parts of India. In the towns many of the smaller hand-industries flourished, but normally the products of these industries were goods, not for the consumption of the teeming millions of the country, but for the use of the richer and middle-classes living in the Courts and urban areas. Silks and muslins, metal utensils, artistic furnishings, carpets and jewellery may be specified among the numerous articles that were produced. Catering for a limited and well-to-do class of consumers, the artisans attained wonderful skill and aptitude in their respective trades. But though their numbers were small, they suffered greatly whenever, in the exigencies of political life, the Court moved away and eventually when they had to meet the competition of machine-made imported goods. Signs of a revival are now apparent. Its permanence will depend on the cultural development of the wealthy and middle-classes in India. For the purposes of this book the art industries of the small towns are not of great importance, because there was never much interchange of workers between these small towns and the villages, and at the present day although there are many emigrants from these towns to the large industrial areas, most of them seek occupation in domestic service or as messengers and few are employed as factory workers.

Turning next to the rise of the modern industrial system, it may be observed that while in England the Industrial Revolution

Rise of modern industrial conditions and comparison with England

was characterised by the invention of machinery in the textile industries and the rapid exploitation of her mineral resources this has not been the case in

India. In this country the Revolution

has proceeded along different lines. Up to the present India has been entirely dependent on imported machinery for her industries and on the importation of rolling stock for her railways. She has also had to import both coal and iron as her mineral resources are being exploited only slowly.

India has, however, this advantage over England that while England has to import the raw material for her industries, India has had to do this only to a limited extent. The raw material of her two chief industries, namely cotton and jute, are produced in the country itself. In fact it is the possession of vast raw materials and the need of utilizing them in the most economic and productive way that is so considerable a factor in India's Industrial Revolution. The advance began when factories were started to utilize the cotton and jute grown so freely in this country. The rapid expansion of these two industries was however hindered considerably by the fact that the development of coal and iron did not take place at the same rate. It was extremely difficult either to establish factories because the primary cost of erection was so great or to compete with other countries where machinery could be obtained at a lower cost. The consequence of this has been that the importation of machinery only proceeded gradually and at first only the requirements of cotton and jute mills and tea gardens were supplied. Machines required for making sugar, husking rice, milling flour are only since comparatively recent times beginning to find their way into India.

Another circumstance which distinguishes the industrial situation in India from that in England is the fact that while the English industries depend for their market to a very large extent on foreign countries, there is an immense home-market available for the products of Indian industries. The Indian people, it is true, depended until recent times mainly on the produce of their hand-workers, but it is manifest that, so far as standardized goods of ordinary qualities are concerned, it is becoming more and more impossible for hand-workers to compete with power factories. If India is to supply her own needs in these classes of goods, she must adopt the factory system of production. But, as stated above, she has the great advantage of having a large market available inside the country, instead of having to find an outlet for her industrial products outside the country. These two factors, namely the

existence of large resources and a large internal demand for the produce of her factories, have been mainly responsible for the industrial progress of the country. It is true that labour is cheap, but, as we shall see in the course of this book, it is unstable and inefficient. If India wishes to achieve a rank amongst industrial nations consonant with the extent of her resources and the size of her home-market, she must take all necessary steps to secure stability and efficiency in her labour supply.

The need of developing India's resources and of utilizing the latest inventions and discoveries in connection therewith has finally compelled Government to give up **State efforts for industrialisation** the *laissez-faire* policy, prevalent at the time when the first signs of the Industrial Revolution were visible in India. Other causes have tended to bring about the same result. Thus, it has come to be recognised that it is necessary to provide diversity of employment both to protect against famines, which arise in part through too great dependence on agriculture and also to provide employment for the middle classes who have no place in a system of peasant cultivation. The desire to render the country self-sufficient in time of war and to raise the general status of the country has been increasing steadily for some time past. Recognition of these needs and tendencies has stimulated Government to take an active part in the industrial development of the country. The recommendations of the Famine Commission of 1880 first emphasised the desirability of providing some means of mitigating the evils of unemployment which were so rife at times of famine. This was followed by Industrial Surveys which were carried out in different Provinces in order to collect information as to possible lines of development. These were begun in 1890 but were done with greater thoroughness for several Provinces in 1908 and 1909. The great Swadeshi wave which spread over the country in 1906 and 1907 also tended to bring about the same result.

The final reversal of the opinion that State interference was injurious to trade did not take place till the time of the Industrial Commission's report of 1916-18. In that report the demand for complete industrialisation on western lines aided and guided by

the State first finds full expression. The recommendations of that Commission regarding the establishment of Provincial Departments of Industries have been carried out. The primary object of such Departments is to foster existing industries and to encourage the growth of new industries. A central Department of Industries has also been established which acts as a liaison department between the different Provincial Departments and is itself directly responsible for founding central institutions for research and development.

The policy of State intervention having been accepted, the question of the fiscal policy of the country naturally came up shortly after for examination. A Fiscal Commission was appointed which toured throughout India in 1921-22 and submitted a report¹ recommending a policy of discriminating protection with a view to fostering India's nascent industries. This policy was accepted by the Legislature early in 1923 and now remains to be put into operation.

The success which has attended the efforts of Government to organise industries has been the best possible demonstration of the value of such a policy. Thus, for example, the Government in India developed the manufacture of munitions and supplied the requirements of the Armies in the Eastern theatres of war with great success. It has for a considerable time past been responsible for the salt manufacture of the country. It has also been successful in fostering the aluminium industry in Madras and the tanning of leather in Cawnpore.

One of the best methods of testing India's advance industrially is by the examination of the figures relating to her export and import trade. In 1919-20 for instance

Test of progress of industrialisation India imported goods to the value of Rs. 208 crores while her exports and re-exports amounted to Rs. 326 $\frac{1}{2}$ crores.² In the following year, owing to the prevalence of abnormal conditions, India's imports exceeded her exports. The most striking feature of the import trade is the ever-increasing demand for iron and steel and for machinery for factories, railway plant and rolling stock. It is true that in 1920-21 manufactured cotton accounted for 30 per cent. of

1 Report of the Indian Fiscal Commission, 1922.

2 Review of the Trade of India 1920-21 pages 3 and 13.

the total imports, but at the same time India imported cotton textile machinery valued at over Rs. 367 lakhs¹ which indicates that she is making a determined effort to increase her own manufactures in that direction. India is now obtaining large shipments of electrical machinery, jute mill machinery and machinery for paper mills, rice mills, saw mills, sugar and tea factories.² Sugar, which ranks next in importance in the list of imports is the only food-material that has to be imported. The increasing wealth of the country is shown by the rise in the value of the import trade in motor cars and accessories. In 1913-14 this item ranked only 13th in order of importance with an import value of Rs. 153 lakhs, while in 1920-21 it was 6th with Rs. 1234 lakhs.³ Agricultural implements and tools, enamel ware and iron ware are also being imported to an increasing extent and have more than doubled in value since 1913-14.⁴

The two most important exports are jute and cotton, both in the raw and manufactured states. In 1919-20 India exported Rs 2470 lakhs of raw jute while her export of manufactured jute reached the high figure of Rs. 5001 lakhs. At the same time she exported Rs 5865 lakhs of raw cotton and Rs. 2741 lakhs of manufactured cottons.⁵ Her other exports are mainly agricultural, consisting of food-grains, flour, seeds and tea. She also does a large export trade in hides and skins and has a virtual monopoly of the trade in lac and shellac.

As in England so also in India the development of the railway system has played an important part in the industrialisation of

Developments of railways the country. In a country such as India the tremendous distances that have to be traversed before goods can be conveyed from the place

where they are produced to the places where they are consumed or exported make fast and cheap transport essential. Before the advent of railways, goods could only be conveyed by slow-moving bullock or camel carts. This method of carriage was also costly and not very safe. Consequently trade was done only in

1 Review of the Trade of India 1920-21. Chart opposite page 3

2 do. do. do. do. page 7

3 do. do. do. do. page 8

4 do. do. do. page 9

5 do. do. do. page 15

goods that were not bulky and were of great value. The lack of good communications hindered both the export and the import trade. The rapid expansion of trade that immediately followed on the initiation of railway communications may be seen by comparing the figures of India's export and import trade between 1853-54 and 1877-78.¹

Year	Imports	Exports
1853-54	Rs. 15,99,46,150	20,77,84,370
1877-78	Rs. 56,68,14,626-	67,34,08,488

The growth of the railway system in India may be gauged by the fact that while in 1872 there were only 5,369 miles of railways the mileage in 1922 was 37,266.² But not only have the railways been instrumental in helping to increase the internal and external trade of India, their construction and maintenance have given employment to large numbers and have afforded an excellent alternative employment in times of bad harvests. The railways have also brought about the mobility of labour. Large industrial centres like Bombay and Calcutta are almost entirely dependent on them for providing the labour which cannot be obtained locally.

The increase in the urban population which characterised the Industrial Revolution in England finds its counterpart in India.

Growth of Towns The population of India, however, is so large that though towns have grown rapidly, the proportion of persons who live in towns to the total population is still very small. The development of trade has helped to increase the number of towns and the size of the existing towns. The first towns to increase in numbers were naturally the principal ports of the country. These are Calcutta, Bombay, Madras, Rangoon and Karachi. Later, the towns which grew up at big railway junctions came into prominence such as Nagpur and Cawnpore.

An interesting account of the growth of the population in towns and especially in Calcutta, Bombay and Madras is given in the general report³ dealing with the Census statistics for the whole of India in 1911. According to that Report there were only 30 cities at that date having a population of more than 100,000 inhabitants and the total number of persons living in cities

1 Review of the Trade of British India 1877-78 page 2.

2 Railway Administration Report for 1922 Vol. I p. 45.

3 Census of India 1911 Vol. I, India Part I, Report pages 42 *et seq.*

of that size was 7,075,782 or 2.2 per cent of the total population. Though this is a small number the rate of increase of the city population since 1872 has been very rapid and is estimated to be not less than 64 per cent.¹

The terribly insanitary conditions which were characteristic of the factory towns in England in the early days are unfortunately

Insanitary conditions in Factory towns. being repeated in India. In fact in all the big industrial centres of India there are slum areas which cause a heavy loss of life. An excessively high rate of infantile mortality prevails and is only another index of insanitary conditions. It is undoubtedly one of the causes of the high proportion of male immigrants to these towns, for men are naturally loath to expose their families to these risks. Another reason why men are reluctant to bring their wives with them to places like Bombay or Calcutta when they come in search of employment is the fact that in these places home-life is practically impossible for immigrants of this class. In Bombay, according to the latest Municipal Report, 75 per cent of the babies are born in one-room tenements. As these tenements are frequently occupied by two or more families and as the number of such families in some cases even rises to eight, it is abundantly evident that under such conditions privacy is wholly unattainable.

In Calcutta and to a lesser extent in Bombay some employers, it is true, have taken steps to provide housing for their workers but

Ameliorative Measures the majority of the workers are not housed in this manner. Also in Bombay the Government, the Improvement Trust and the Municipal Corporation have all taken up the question of the housing of the working classes. The problem is extraordinarily difficult because of the very bad conditions that have been allowed to arise and the expense that has to be incurred in acquiring fresh sites and in reclaiming land from the sea. The problem confronting Calcutta is not quite so difficult. The jute mills are located mostly outside the city and there is, in the majority of cases, plenty of room for the building of new settlements to replace the congested areas in the city, if funds become available and means of communication are provided.

¹ Census of India 1911, Vol. I, India Part 1, Report page 42.

The Industrial Revolution in progress in India is not only producing a change in industrial methods, but is bringing about

Interaction of Industrialisation and improved Agriculture many important changes in agriculture and in the lives of the agriculturists. Before railway communications were established each village had to grow all the crops required for local needs and exported only the surplus. Land which was quite unsuitable for growing sugar and cotton, for instance, had to be utilised for these crops. With the development of communications, agriculturists find it profitable to grow the crops which are best suited for the soil and the environment. Definite tracts of country are, for example, now devoted to cotton and sugar-growing. The jute crop which is grown extensively in Eastern and Northern Bengal is an example of a crop which owes its importance to the industrial revolution.

Not only has there been this territorial distribution of land for specific crops, but the methods employed and the crops themselves have been much improved by the Agricultural departments in the different provinces. The need of still further aid in both these directions is emphasized in the Report of the Indian Industrial Commission. The Report¹ also draws attention to the beneficial effects of the development of irrigation and the consequent improvement in agriculture which has enabled much larger quantities of food stuffs to be grown, and to the possibility of diverting these supplies, through the railways, to areas suffering from famine. The importance of these facts can scarcely be overestimated. The report refers to the terrible famines which "from time to time depopulated wide stretches of country," but states that this is now no longer to be feared and that "famine now connotes not so much a scarcity or entire absence of food as high prices and a lack of employment in the affected areas."²

The increasing use of agricultural machinery, besides improving the crop, is gradually setting free a number of workers for in-

Causes of migration of labour from agriculture to industries

dustrial work and will do so to an increasing extent. At the same time it should be noted that Indians are extraordinarily tenacious of their rights in land and are very unwilling to be divorced from it. On the death of an

1 Report of the Indian Industrial Commission 1916-18 Chap. I para 5.

2 Op. cit Chapter I para 5.

owner or cultivator the land is parcelled out in equal shares among all the sons. This results in a very large proportion of the holdings becoming too small to be cultivated in an economic manner. These small holdings also stand in the way of the full utilisation of agricultural machinery. In order that improved agricultural methods may be widely adopted, it is desirable that the holdings should become larger in size. It is to be feared, however, that this will not happen without revolutionary changes in the laws of the country. At present, in times of agricultural depression agricultural workers are compelled to leave their homes to seek remunerative employment in factories, in mines, and in tea or coffee plantations. The men and women following handicrafts are also compelled to go. The local market for their products suddenly shrinks. They cannot afford to make and store articles and so must endeavour to find work elsewhere. Thus, the *lunias*, or earth workers, endeavour to get employment on construction work; the *chamars* go into leather factories.

Apart from the effects of seasonal calamities the peculiar agricultural conditions prevalent in most parts of India—and here it must be mentioned that Burma lies outside the scope of this book—favour a constant migration into factories and mines. The security of possession afforded by a settled form of Government during the last hundred and fifty years has increased very considerably the number of persons anxious to hold land. The size of the holdings is generally small and on the death of a tenant the holding is further subdivided. There is, in consequence, severe congestion in many agricultural areas. The landless labourer is the first to feel the pinch and consequently the first to move. But the tenant also migrates. He is anxious to obtain money either to buy more land or to secure the means of improving his holding as the landlord does not, in most cases, consider it his duty to provide the necessary capital for this purpose. The tenant is frequently in need of money to pay rent which has now in most cases to be paid in cash and not in kind as in former days. A great part of his capital is sunk in cattle and consequently he is involved in constant expenditure. In famine times all his cattle may be lost owing to the impossibility of getting fodder and the need of seeking remunerative employment at once arises. A tenant is enabled to leave his land because it is generally held on a joint-family basis. While on the one hand this often means that

the land is incapable of supporting the entire family, on the other it renders migration more easy. Thus when there is need of capital for improvement or when the harvest has not been good or in times of slackness some members of the family can migrate, leaving others to carry on their farm at home. By doing so they not only ease the burden at home, but are frequently able to send back monetary help.

The landless wage-earner too may be impelled to seek more remunerative employment in order to improve his social status by rising to the position of a tenant. There is no hard and fast line dividing these classes and a tenant who has suffered from a succession of bad harvests may find himself reduced to the landless class, just as a man in this class can by industry rise out of it. The position of a landless wage-earner in the village is not very enviable. He is given, it is true, land on which to build a house and material for it, but in return he has to perform all kinds of work. Thus, if the landlord wishes to have a well dug, dig he must. When there is a marriage ceremony he must assist in the extra work entailed, be it the carrying of loads, the erection of tents or work of any other kind. He has to accept wages in money or in kind according to the wishes of his landlord. In his leisure he can work for tenants and at such times he is able to command better terms. His wages do not allow him to live in any degree of comfort. From time to time he comes across other men who have risen from the same position as himself and who, because they had sufficient enterprise to migrate, are in more comfortable circumstances. The pressure of his wants and the example of his fellow villagers induce him also to try his fortune in distant parts. As in the case of a tenant emigrant, he too looks forward ordinarily to returning to his native village. He has left either his wife and children behind or some other members of his family to satisfy the demands for labour made by the landlord. Or less frequently he has taken his wife and children with him to add to his earnings by their toil.

Unlike England this class of labour in India seldom becomes entirely divorced from agriculture. Here and there, it is true, there are springing up the germs of an industrial class, but this movement is only in its infancy. Indian men and women, on the whole, enter industry only for short periods and not as though they had embarked on a permanent profession. At the back of their mind is always the desire to return to their own villages.

and to resume their agricultural mode of life. Bad harvests, debts or the need of money to purchase cattle or land may force them to take up factory work for a time. They console themselves with the thought that it is only a temporary expedient, a time of hardship that must be endured for the sake of a better time in store.

These economic causes thus tend to increase the supply of labour required for factories and other organized industries. Social causes also help to bring about the same result. Some reference has already been made to the joint-family system. A family is ordinarily composed not only of the father and mother and minor or unmarried children, but also of the adult and married sons and their wives and children. Sometimes several brothers and occasionally even first and second cousins live together and carry on jointly their farming or other business. Food and work are shared and, as we have seen, one or other member takes it in turn to help the family exchequer by seeking more remunerative employment elsewhere. He can do this, while leaving his wife and children at home, as he knows that they will be properly cared for in his absence. This constitutes however a very strong incentive to return and accounts to some extent for the instability of Indian labour.

Higher wages and the greater certainty of employment are, however, not the only causes that favour migration from the villages. A man may be out-casted in the village on account of having married a woman of lower caste than himself or because he has given his daughter in marriage in this way. Or again he may have broken, either advertently or inadvertently, any of the other caste observances rigidly enforced in his village. In order to escape the social ostracism which is the inevitable consequence of acting in opposition to the beliefs of the majority, the man has to leave. In a factory or in a mine he will be able to mingle with men and women of various castes and creeds who will not look askance at him for non-observance of caste rules and regulations.

Not only has the Industrial Revolution created new industries to attract these sources of labour supply but improved communica-

Other new avenues of Employment tions have made it possible for people to migrate from rural areas to distant countries such as Java, Fiji, Ceylon, Malaya, Mauritius and Guiana in search of employment. They also go to newly opened up tracts such as Burma where the local labour supply is

insufficient. They take up work in large numbers in tea, coffee and rubber plantations in Bengal, Assam and Madras. The construction of railways and large public works make intermittent demands for large supplies of labour. The large industrial towns offer diverse forms of occupation of various kinds. A man who wishes to seek remunerative employment has therefore the choice of many different avenues of employment. If he wishes to take his wife and children with him he will probably seek work in a tea or coffee garden where all the family will be able to get employment together. If he desires outdoor work for a comparatively brief period he will probably try to get employed on construction work. If, on the other hand, he is a man with a special trade such as weaving and does not wish to coarsen his hands he will go if possible into a jute mill or cotton factory. If he is of strong physique and a member of an aboriginal tribe he will think nothing of walking ten or fifteen miles two or three times a week in order to take up work for a time in a coal mine.

The growth of factories and the opening up of mines has created an increasing demand for the labour not only of men, but

Growth of Factories and Mines also of women and children. The numbers employed cannot be accurately ascertained

till the year 1892 in the case of factories and the year 1902 in mines, as they were not recorded officially before those dates. In 1891 an Act was passed relating to factories which brought all factories employing fifty or more persons within its scope. At the same time local Governments were given power to extend the Act to all factories employing twenty persons or more. If the figures of the numbers employed at that date are compared with those for 1920 they will give a fair indication of the growth of the factory population. In the case of mines the numbers employed in 1902 will be taken, as the first Indian Mines Act was passed in 1901 (VIII of 1901).

Average daily number of persons employed :—

(a) *Factories*

Year	Men	Women	Boys	Girls
1 1892	254,336	43,592	16,299	2,589
2 1920	986,367	184,922	55,503	11,933

1 Clew Indian Factory Law Administration—Bulletin No. 8 of Indian Industries and Labour page 47.

2 Annual Report of the working of the Indian Factories Act 1920. Statement No. III page 17.

(b) Mines

ABOVE GROUND

BELOW GROUND

Year	Adult males	Adult females	Children under 12	Total	Adult males	Adult females	Children under 12	Total
1 1902	21,272	11,684	3,808	36,764	53,224	21,853	2,233	76,810
2 1921	60,665	34,546	5,133	100,364	88,501	57,403	3,395	149,299

Not only have factories and mines made a large demand for labour and drawn people away from their villages, but they have

New relations
between
Employer and
Employed

also brought about a fundamental change in the relations between employer and employed.

In the villages men are to a certain extent their own masters. If they hold land they can, within certain limits, fix their own hours of work. They are the owners of the produce of their land. If they are landless labourers they may have to work long hours, but they work directly under the eye of the employer and village custom establishes close and often friendly relations between the two parties. The artisans who make pottery or metal vessels are their own masters. Their toil is rewarded when the article on which they have expended their energy is sold. Where work is undertaken for another, there arises what is called a *ma-bap* relation, *i. e.*, a relationship which is known as that of 'Mother and Father.' In rural India a man or woman frequently tends to look upon his master in this way. It is in fact an expression in common use. They have also a strong feeling of loyalty towards one whose *salt* they have eaten or in other words who has provided them with wages.

When a man enters a factory he finds that this relation no longer exists. He is but a unit among many and has no idea who his master is. All he knows is that he is under the immediate supervision of a foreman who has the power to dismiss him. In a great many factories he receives no wages until he has worked a month or six weeks, and his wages are always in arrears. In most cases there is no one to whom he can explain his difficulties. He is sure to be in monetary trouble. He has come from his village because he was short of money and on arrival at the factory finds that he has to begin by borrowing at an exorbitant rate. There is no one at all interested in him. Prior to his departure from the village all his actions helped to swell the village gossip. If he was

1 Annual Report of the Chief Inspector of Mines 1902 page 25.

2 Do. Do. Do. 1921 page 37.

sick his neighbours took a kindly interest in his complaints. In a town and in a factory he feels himself as being a person of no importance and at once makes the resolution that should he fall ill, he will return at once to his village and never come back to this land of strangers.

Besides the inhospitality with which he meets, an immigrant frequently finds great difficulty in making himself understood. In the factory there are men of diverse castes speaking many different languages. The overseer may be a Parsi or an Englishman, and in most cases the newly joined labourer finds it useless to expect the overseer or foreman to comprehend his own individual needs. He finds that his particular dialect is understood only by a section of his fellow employees. In the Bombay Presidency at the last census there were no less than 25 Indian languages returned as being in common use. The industrial statistics further reveal the fact that though certain castes predominate among the factory workers men of all castes are to be found.

The labour force in an Indian factory is essentially a composite body. Men of different castes, speaking different languages and of

**Difficulties of
Factory
Management
in India**

widely differing customs and ideas all seek employment. An Indian factory in Calcutta or Bombay is not far different from the Tower of Babel. To manage so heterogeneous a group of workers is a task much heavier than any manager has to face in England. In India he has to deal with men who do not understand and are consequently not easily amenable to discipline. As one manager informed me, and he was in charge of one of the best cotton mills in India, the men regard the factory as a prison. They have not been accustomed in their villages either to definite hours or to regular discipline and dislike both very much.

Owing to this complexity of the labour employed in mills, it is not surprising to find that Indian labour is very unstable. There are so many possibilities of misunderstanding where the language in which work is conducted is only partially understood. These misunderstandings frequently end in dismissals or in the worker leaving of his own accord. In the mill mentioned above, the manager calculated that his entire factory staff changed once every eighteen months. This was an exceptionally well-managed mill and most factories fall far short of this standard. One

seldom sees an old man or an old woman employed in an Indian factory. In fact in an industrial town such as Bombay the number of old men and old women is much below the average. Indians are not accustomed to protracted strenuous toil. Only men and women in their prime can stand the strain of factory work in a country where the climate makes sustained effort difficult for any length of time.

The instability of the labour force combined with the fact that it is an essentially heterogeneous mass is a serious obstacle to the way of combination among workers. The illiteracy of this mass of labour is also a great hindrance to union. It is almost useless to distribute tracts among them or to draw up an agenda for discussion at a meeting. In spite, however, of all these drawbacks labour is gradually becoming articulate and attempting to form Unions. An account of this movement will be given in the final chapter. The difficulties that stand in the way of the formation of Unions are also a serious impediment in the way of securing humane and efficient conditions of work and life.

There is not as yet an effective demand on the part of labour itself for conditions which outside India are now recognized as

Lack of demand for better conditions essential. The men and women who come from the villages to the weaving and spinning

sheds find themselves in surroundings that are so extraordinarily strange and novel that they cannot possibly differentiate between the conditions that are the inevitable incidents of factory life and the conditions that are susceptible of modification and improvement. Only gradually does such knowledge come. But even when it does come it cannot but be very imperfect. Indians have had little experience of factories run on modern lines and so have no standard by which to judge. Until very recent times the same was true even in England, although men and women in that country have been familiar with factory life for a considerably longer period. The writer has come across in England firms with a European reputation for their wares who did not think it any reflection on their management that their workers came to work carrying miserable little bundles of stale food. In the evening when they went home their clothes were all dirty and their hands and faces grimy with their toil. When one suggested the utility of washing appliances one was

blandly informed that they would not be used by the workers. The fact that it was only humane to provide these necessities of life was not recognized. The psychological effect that good and healthy surroundings had on the workers and consequently on their work was still less recognized. A change was brought about during the war when the factories had to work night and day and a very high standard of output and efficiency was essential. The management then found it useful to provide such amenities as mess rooms and canteens, cloakrooms and washing accommodation.

In India the tradition has on the whole been accepted without question that a factory is merely a place where machines are

**Deficiencies
in Existing
Conditions** installed and where work is done. But it is no part of the tradition that the factory forms the environment for human beings for

the greater number of their waking hours. Consequently only in rare instances does one come across establishments where adequate provision is made for the comfort of the workers. Thus, though drinking water is provided in all factories in accordance with the law, it is only in exceptional places that one finds arrangements made for providing *cool* drinking water. Again accidents are of frequent occurrence but first aid appliances are rarely maintained because they are not required by law. The jute mills in Calcutta and the cotton mills in Bombay and Cawnpore are generally provided with dispensaries, but in small factories no arrangements are made for medical relief. Even in the larger factories only in exceptional instances are separate arrangements made for the medical treatment of women and in very few factories have they the benefit of being treated by one of their own sex. Meals have to be taken either in the yard exposed to the sun or rain or else in the crowded machine shops. The factories that have provided sheds for this purpose are the exception. These drawbacks to factory-life undoubtedly check the supply of labour and are thus impeding the rapid industrialization of India. Conditions in the villages may not be ideal, but they are far more satisfactory from the point of view of the individual worker. His nerves are not racked by the din of noisy machinery, nor is his night's rest spoiled by the roar of trains and traffic. Instead of being a stranger he is very much 'at home' with those among whom he works and his companions and fellow villagers are genuinely interested in his well-being.

CHAPTER II

COURSE OF THE INDUSTRIAL REVOLUTION IN INDIA

The reasons for the rapid development of the Industrial Revolution in England are well-known to all students of English

Causes of slow development in India as compared with England economic history, but the causes which have hindered its progress in India have not been as carefully studied. The slow development in India is a surprising fact

considering the early civilisation of the country. Some of the causes are no doubt political; others arise from the fact that the mineral resources of the country are only now beginning to be exploited on a proper scale; and still others may be ascribed to the geographical features of the country and to the mentality of its people. England had the advantage over India in many respects. Politically it was a free country and could therefore expand its trade in relation entirely to its own interests. The exploitation of its mineral resources proceeded rapidly, while the people were ready to adapt themselves to changing circumstances.

In discussing the causes that hindered India's development, the authors of the report of the Indian Industrial Commission,¹ are of opinion that the policy pursued by the East India Company and later by Government was in part responsible. They point out that, while trade was the primary object of the East India Company, it was not a matter of vital importance whether manufactured articles or raw produce were exchanged for English manufactures. In fairness to the Company the Report draws attention to the fact that "attempts were frequently made throughout the period of its domination and even subsequently to introduce into India various manufactures with State support and encouragement"². These attempts failed, so the Report asserts, because of the absence of scientific knowledge and the consequent belief that the country was better suited to the production of raw

1 Report of the Indian Industrial Commission 1916-18. Chap. 1, para 1.
et seq.

2 Op. Cit. Chapter 1, para 2.

material than to manufacture. This belief was strengthened by the adoption of the *laissez-faire* policy in England and the rapid expansion of England's own manufactures.

Besides these hindrances there were others which were no less effective. The immense size of the country, the lack of means of communication, and the unsettled condition of many parts made trade extraordinarily difficult. Goods could be moved only slowly and after elaborate precautions for their safety had been taken. Only articles that were not bulky and were at the same time valuable were suitable for this mode of transport. Further, while manufacture was carried on extensively, it was entirely dependent on hand and was mainly carried on to supply local needs. In these circumstances it was very difficult to organize a system for the export of these manufactures and such efforts are only now meeting with any measure of success. But the chief hindrance to rapid development was the fact that coal and iron were not exploited with any measure of success.

In view of these obstacles the British Government confined itself mainly to the establishment of law and order in the land, to the improvement of the means of communication, and to the facilitation of the export of raw materials and the import of foreign manufactured goods. The establishment of law and order was undoubtedly a *sine qua non* of industrial progress and the creation and expansion of the railway system were no less necessary. The great strides that have been made in this latter direction are graphically illustrated in the Map given in the Railway Administration Report for 1922. (page 45) If however full industrial development is to take place, India's mineral resources must be still further exploited, machinery must be made in India and the manufactures of the country must be greatly increased.

The first industries to be organized in India on a factory basis were cotton and jute and to a much smaller extent wool.

Growth of power industries Both the cotton and jute industries were hampered considerably by the fact that they
(1) Cotton were dependent on importation of machinery

from England and even, to a certain extent, on the supply of coal from abroad. The cost of such importation could only be borne by large companies with big capital and moreover added considerably

to the cost of production. An interesting comparison between the cost of setting up a mill in India and in England is given in the report dealing with the Trade of British India in 1877-78.¹ The prime cost of erection is there stated to have been about three times as great in India as in England. From the year 1854 onwards the industry only developed slowly and by the year 1878-79 only 58 mills had been established with approximately 12,000 looms and one million and a half spindles.² In England, on the other hand, at that date there were no less than 2,579 cotton factories containing nearly $44\frac{1}{2}$ million spinning spindles, over five million doubling spindles and 636,015 power looms³. After that date development in India was more rapid and by the year 1891 there were 127 mills with 24,670 looms and 3,272,988 spindles and 118,000 employees⁴. The number of mills and employees have almost doubled during the succeeding thirty years. There has also been a corresponding increase in output during this latter period. Some estimate of this increase can be framed from the figures relating to the export trade, the exact details regarding which are given in the tabular statement (see Table I in Appendix). In spite of this expansion in her cotton trade India still exports on an average more than half her total supply of cotton. In 1920-21 the percentage of her exports on her total production of cotton was as high as 58 and for the five years prior to the war it was 56.⁵

The history of the jute industry is very similar to that of cotton. The manufacture of jute, except by hand and on a small scale, was practically unknown before 1857.⁶

(2) Jute It too also developed only slowly till the nineties of the last century after which the number of mills and employees increased rapidly as also the share of the industry in the export trade. At the time of the Census of 1921 there were 62 jute mills in Bengal with 40,327 looms and employing 284,758 persons.⁷ The exact stages of its growth are best seen from the

1 Review of the Trade of British India in 1877-78 p. 18

2 Review of the Trade of British India 1878-79 page 31

3 Review of the Trade of British India with other countries 1878-79 page 31

4 Review of the Trade of British India with other countries 1891-92 page 30

5 Review of the Trade of British India with other countries 1920-21 page 15

6 Review of the Trade of British India with other countries 1878-79 page 32

7 Census of India 1921, Bengal Vol. V Part II Industrial Statistics Table XXII Parts II & VII.

appended tabular statement (see Table II in Appendix). If the figures of 1890-91 are compared with those of 1921, it will be seen that during this period of thirty years the number of mills has more than trebled and the number of employees has more than quadrupled.

While England's industrial expansion was due to the exploitation of her coal and iron resources, India has been considerably hampered by having to depend on imported machinery and also till recently to a large extent on imported coal. The history of the development of India's mineral resources till within recent times was far from satisfactory. The first coal mine is said to have been opened in the year 1820¹ but up till 1873 the number had only increased to 25. During the next four years no less than 25 were opened.² The total output of coal in India in 1878 however was only 1,015,210 tons while nearly half that quantity had also to be imported at that date.³ The output gradually increased after that date but it did not double itself till the year 1891.⁴ Gradually a small export trade was built up amounting to about twenty-six thousand tons just prior to 1891⁵, the exports rose to over 540,000 tons in 1900,⁶ while the production figure for that year exceeded six million tons.⁷ The Indian Mines Act (VIII of 1901) was passed in 1901 ; from that date the figures of output and numbers employed are more readily obtainable. At the end of 1903 there were no less than 295 coal mines which came within the scope of the Act. Of these 272 with a total output of 6,566,224 tons were in Bengal which then included the present province of Bihar. The total number of employees was 79,561 and the grand total output for all coal mines was 7,064,625 tons.⁸ The rapid expansion that has taken place since that date is seen from the fact that in 1921

1 Review of the Trade of British India with other countries 1878-79, page 22.

2 Op. cit. page 22

3 do, page 22

4 Review of the Trade of India 1891-92 page 11.

5 Review of the Trade of India 1890-91 page 33.

6 Review of the Trade of India 1900-01 page 23.

7 Review of the Trade of India 1900-01 page 23.

8 Report of the Chief Inspector of Mines 1903 page 26 and 29 (Statements I and IV).

there were no less than 884 coal mines at work with an output of 18,358,934 tons and giving employment to 190,647 persons.¹

The development of the iron resources of the country has proceeded even more slowly than in the case of coal. The figures

Development of Iron-Mines regarding the early imports are not easily obtainable as they are not given separately in the annual returns. In 1890-91 193,828

tons of iron were imported² and 38,651 tons of steel, which was said to be replacing the cheaper and commoner forms of iron.³ The only mines reported to be producing iron in 1903⁴ were in the district of Singhbhum (then in Bengal) and their total output was 10,925 tons and the numbers employed were only 740. In 1921⁵ the output of iron ore was 286,190 tons, the employees numbered 3,080 ; additional mines had been opened in Burma and Rajputana though the mines in Singhbhum still yielded by far the greatest output.

Increasing use of machinery India has been obliged to import machinery, railway plant and rolling stock, as these could not be made in the country because of the comparatively slow exploitation of her mineral resources. Thus in the year 1920-21 she imported no less than 2409 lakhs worth of machinery and 1648 lakhs worth of railway plant and rolling stock.⁶ In 1850-55 the value of machinery imported into this country was Rs. 481,102, but owing to the erection of cotton mills in Bombay and jute mills in Bengal the value of such imports rose to Rs. 1,18,59,433 in 1874-75.⁷ Machinery is required not merely for the textile industries ; it is being increasingly used both for agricultural purposes and for the conversion of agricultural produce into trade products.

The increased use of machinery and the larger supply of coal that has been made available has helped to increase very con-

1 Report of the Chief Inspector of Mines 1921 page 25 Table No. I.

2 Review of the Trade of India 1891-92 page 8.

3 Op. cit. page 9.

4 Report of the Chief Inspector of Mines 1903 page 27 and 30 Statements I and IV.

5 Do. Do. 1921 page 30 Table I.

6 Review of Trade of India 1920-21 pages 7 and 8.

7 " " " 1875-76 page 16.

4

siderably the number of factories. The increase in the number of cotton and jute mills has been traced, but there has also at the same time been a great expansion in factories generally. The exact rate cannot be accurately ascertained owing to circumstances already mentioned. The figures relating to the number of factories and the number of employees in 1892 and 1919 are, for all practical purposes, comparable and if put side by side give a vivid picture of the great expansion of the factory industry between those dates:—

Year	Total number of Factories	Total number of employees
1892	656	316,816
1919	3,604	1,171,513

This growing industrialisation of India has naturally brought about a change in India's export trade; it has raised considerably

Resultant changes in Export trade not only the total value of the export of her manufactured goods, but also their position relatively to her exports of raw produce. The change that has been brought about may be illustrated by comparing the principal items that made up her export trade in 1878 with those of 1921 and their relative importance. The total value of these items in 1878¹ was Rs. 53,46,54,966 while in 1921 they amounted to Rs. 199 crores.²

EXPORTS IN 1878	percentage of total	EXPORTS IN 1921	percentage of total
Opium ...	24.4	Jute manufactured ...	26.5
Grain & pulse ...	18.3	Cotton (raw) ...	20.8
Cotton (raw) ...	14.8	Food grains & flour ...	12.8
Oil seeds ...	8.7	Cotton manufactured ...	9.1
Jute ...	7.1	Seeds	8.4
Tea ...	5.9	Jute (raw)	8.2
Hides & Skins ...	5.8	Tea	6.1
Indigo ...	5.5	Lac & Shellac ...	3.8
Coffee ...	2.9	Hides & Skins (raw) ...	2.6
Cotton goods ...	2.6	" " " (tanned). ...	1.6
Jute manufacture ...	2.0		
Wool ...	2.0		

1 Review of Trade of British India with other countries, 1878-79 page 24.

2 " " " India, 1920-21, page 15.

This increased use of machinery and the development of railways that was described in the previous chapter naturally lead to the growth of towns. The expansion **Growth of Industrial Towns** in the size of such industrial centres as Bombay, Calcutta and Howrah, Cawnpore, Nagpur and Madras is best demonstrated by calculating the increase in the population that has taken place in these towns between 1872 (the date of the first Census) and 1911 (the latest available figures) (see footnote). It will be observed that the increase has been very considerable in Howrah, Calcutta, Bombay and Cawnpore. Calcutta and Bombay owe their importance not only to the fact that they are the termini of large railway lines in India, but because they are two of India's most important ports. Madras is a railway terminus besides being a port. Nagpur is midway between Calcutta and Bombay and is situated on the main railway. It is also a convenient centre of trade of the Central Provinces which flows naturally to the capital. Cawnpore is at the junction of several railways and is an important industrial town.

The growth of these towns has brought into prominence a large urban population. Considering their numbers in comparison with the rest of India their political power is extraordinary. It is in these towns that the national aspirations of the people are first formulated. The leaven of ideas fostered in these places gradually permeates into the villages, but at present the intelligence of India and its desire for political power largely centre round these towns. It is true that the factory workers of these places do not form part of the stable population, but their fluctuating character is in some ways an asset to the country. Many come and many go and so in this way the education afforded by life in a large city

Town	Population in 1911	Percentage of
		variation 1872-1911
Calcutta with suburbs	1,043,807	+ 44.6
Howrah	179,006	+ 112.9
Bombay	979,445	+ 52.0
Madras and Cantonment	518,660	+ 30.5
Cawnpore and Cantonment	178,557	+ 41.9
Nagpur	101,415	+ 20.1

Census of India 1911, Vol. I India Part I Report page 54 (figures for 1921 not yet available).

is gained by many. It is true that the labourers who come to the towns from rural localities suffer from the comparative unhealthiness of the towns, but they are able to recruit their health when they return to the villages. This circumstance has raised a doubt in the minds of many whether Indians could continue to do factory work generation after generation without deteriorating considerably in physique. It may however be hoped that health conditions in the towns will steadily improve and that future generations born in the towns will acquire immunity from urban diseases.

✓ The factories have in this way created a large urban population whose manners, habits and customs are very different from those that obtain in the villages. Caste and family life which are of such paramount importance in the villages have to be modified to suit the conditions of crowded city life. The difficulties of observing caste rules amid a heterogeneous factory population are sufficiently obvious. But while these are among the incidents of life in the towns there are undoubtedly many advantages. First and foremost is the educative value of such a life. When a man is illiterate, and the majority of the workers in India are in that condition, the only way of receiving fresh ideas is by conversing with others and by seeing new places and different kinds of life. In a village the people with whom a man ordinarily mixes do not add much to the stock of his ideas and are in fact moulded in the same cast as himself. A town such as Bombay or Calcutta, on the other hand, gives a man the opportunity of exchanging ideas with men from various parts of India and possessed of very different ideas. His experience of life is also much widened. He sees all kinds of sights, is initiated into the wonders of machinery and is shown how to utilize it. Instead of working more or less as an isolated unit he has the experience of working with large numbers and sharing, to a certain extent, their aims and aspirations. He may even be able to secure a modicum of education for himself, should he be fortunate enough to come under the notice of one of the social agencies.

Although factories and factory life affect directly only a comparatively small proportion of the total population of India,

Effects of the Industrial Revolution.— yet the lives of practically the whole population have been materially altered by the advent and development of the

(A) On Rural life.—

Industrial Revolution in India. In the first place before the introduction of the railway system and the improvement in communication roads, each village, to a large extent, lived its own isolated life. The villagers lived and died in these villages and at most had experience of places within a radius of ten to twenty miles. The improvement in the means of communication has completely altered the country. Distances that took months to traverse can now be covered in a few days. Inaccessible parts and areas that were the haunt of wild animals have been rendered possible places of habitation. Agricultural produce can be moved with comparative ease and at low cost over great distances, thus mitigating to a very great extent the ravages of famine and also enabling the agriculturist to get a price for his crop, which is not conditioned by a glut or the reverse in his particular district, but which is fixed by world prices.

Another effect that has been produced is to increase very much the mobility of labour. Improved communications have made it possible not only for persons to migrate from the villages into the towns in search of factory employment, but they can also migrate to find work in tea-gardens and mines and in the agricultural districts of provinces other than their own. In times of bad harvests this is especially the case and it helps to mitigate the rigours of unfavourable agricultural seasons. This mobility of labour confers a further benefit on rural areas in as much as it tends to raise the wages paid in such areas. Once men are aware of the amount that can be earned either in factories or in tea-gardens they do not willingly accept the very much lower wage that prevails in rural localities. Lower wages are only accepted by agricultural labourers because on the whole such a life is preferred by the majority of persons.

The rise in the standard of wages has a direct effect on the standard of living in the villages. A man is able to buy more food both for himself and his family and consequently is capable of doing better work. The extra-money earned is spent not only in food, but also in clothes and in providing cooking utensils which are a convenient form of saving as they always find a ready sale. Further in places where schools are open the better wages earned enable the family to put off for a short time the day when the children have to start earning wages.

The most far-reaching effect of the Industrial Revolution has however been on agricultural methods throughout India. Originally each village grew all the crops it needed for

(B) On Agriculture its own consumption, regardless of the fact whether the soil was particularly suitable for their growth or not. Now that crops can be moved with ease and the demand for agricultural produce has increased owing to their utilisation in factories, definite tracts are exclusively devoted to definite crops. Thus, for instance, the jute crop is grown extensively in Bengal, while cotton is grown principally in Berar, Bombay, Madras and North India. The importance of the different crops and the area allotted to their cultivation has been graphically illustrated in the volume entitled India 1921-22 (opposite page 153). According to the statement given there the total area under cultivation was 255 million acres, 211 being given up to the cultivation of food crops and the remainder to non-food crops. The acreage was divided as follows :—

<i>Food crops :-</i>	<i>Million acres</i>
Rice	79
Wheat	24
Jawar } Millets	22
Bajra }	15
Gram	13
Barley	7
Maize	7
Fruits and Vegetables	6
Ragi	4
Sugarcane	3
Other food crops	31
<i>Non-food crops :-</i>	
Cotton	15
Fodder crops	8
Rape and mustard	4
Jute	3
Sesamum	3
Linseed	2
Other non-food crops	9

The setting aside of certain tracts for the cultivation of certain specific crops was undoubtedly a great step in advance.

The researches that have been instituted by the Agricultural departments to discover improved varieties giving a greater yield have also been of great importance. Researches have been conducted with a large measure of success in rice, wheat, sugar, cotton, jute and indigo. Thus at the sugar-cane farm at Manjri near Poona it is contended that improved varieties of sugar-cane will give the cultivator a profit of Rs. 300 on an expenditure of Rs. 700, while if he pursues his old methods he will only get a profit of Rs. 65. The report of the Indian Sugar Committee was published in 1921 and contained recommendations regarding the establishment of a research institute, a training school and a demonstration factory.

Besides undertaking research work the agricultural departments in the various provinces are making determined efforts to improve agricultural methods generally. Amongst other measures adopted by the Provincial Departments is the establishment of agricultural schools. This is especially a feature of the Bombay Province and owes its inception to Dr. Harold Mann. The educational work of the other provinces is carried on somewhat different but efficient lines. The following details regarding a school near Poona which I had the opportunity of visiting may be taken as typical of the educational methods of Bombay. The object of the school was to give a thoroughly practical training to boys belonging to good cultivating and land-owning families. The course lasts two years and boys between the ages of 14 and 17 who have passed the fourth school standard are admitted. In laying out the school an attempt was made to make the whole property as much like a cultivator's holding as possible. The area is 29 acres and is almost entirely worked by the boys. The school and residential buildings are laid out like a large village. The number of boys at present in the school is 50 of whom 20 are Brahmins and the rest belong to other castes. Half the working time is spent either in farm work or in gardening, in doing dairy work or in agricultural operations. The school work consists of arithmetic, special attention being paid to farm accounts and to mensuration applied to agricultural purposes. There are also courses on 'village life' which include such subjects as sanitation, hygiene and secondary occupations suitable for villages. Attempts are being made to keep in touch with the

boys after their training is completed and old students are encouraged to revisit the school.

There are also a certain number of experimental dairies in different parts of India which are used as training grounds for students belonging to agricultural colleges. Students are taught how to make butter, cheese and cream by the use of up-to-date machinery and how to look after the cattle. The agricultural colleges themselves are doing splendid pioneer work. The College near Poona was visited by me. The number of students in 1918 was 137 of whom nearly 50 per cent were Brahmins. Besides the ordinary routine work of the College the students are encouraged to undertake research work and many of them assist in the preparation of agricultural bulletins which are published by the Department. These pamphlets are all essentially practical and should be extremely useful to cultivators. They deal with subjects such as "Groundnuts in the Bombay Deccan", "The cultivation of guavas near Poona, Dharwar and Lungaon", "Grape growing in the Nasik district", artificial manures, etc. The College has also a monthly magazine and a series of pamphlets published in Marathi especially for cultivators.

The different provincial agricultural departments have also done a great deal to popularize the use of improved implements and machinery. The success of their efforts is reflected in the increasing quantities of such articles that are being imported. Thus in 1920-21 the value of the imports of agricultural implements was double that of the previous year and amounted to Rs. 43 lakhs.¹ Considerable sums are also being spent on machinery in connection with rice mills, sugar mills and tea factories.² The introduction of the Meston plough in the United Provinces and of similar simple but improved implements in other parts of the country have in a great many cases proved a financial success for the agriculturist. In short the application of machinery to agriculture is proving as beneficial to the country and as wealth-producing as its application is doing in the case of industry.

1 Review of the Trade of India 1920-21 page 9.

2 Op. cit. page 7.

Turning next to the effect of the competition of machine-made goods on village industries the position with regard to hand-spinning and weaving will first be examined.

(C) on Village industries There is a general concensus of opinion that hand-spinning has in most parts of India almost completely disappeared as a principal occupation. Mr Chatterjee in his 'Industrial Survey of the United Provinces', it is true, still found traces of it, but, when the Industrial Commission made their enquiries in 1916-1918 they found that the quantity of hand-made yarn woven by hand-weavers was negligible.¹ The efforts made by Gandhi to restore hand-spinning as an industry in villages undoubtedly met with some measure of success, but it is difficult to form an exact estimate, as figures are not available. The position with regard to hand-loom weaving is entirely different. The Indian Industrial Commission Report deals exhaustively with the subject both in the report and in one of the Appendices. According to the Commission "three causes have contributed to the existing general impression that hand-weaving in India is a declining industry. They are (1) the enormous increase in the production of mill-made cloth, (2) the bad financial conditions under which the hand-weavers work and especially the extent to which they have had to receive famine relief; and (3) the census figures."² The report admits the validity of statements (1) and (2) but questions the conclusion based on the census figures. The difficulty in dealing with them is the fact that they are not in all cases comparable, as weavers have in some years been described as engaged in cotton manufactures while in others they have been described simply as weavers. Or again in some cases hand and factory textile workers have not been recorded separately. After going thoroughly into all these chances of error the report comes to the conclusion, "though only with caution and reserve" that while "there has been some apparent tendency for the total number of weavers to decrease, there is reason to believe that this reduction, so far as it is real, is confined mainly, if not wholly, to the coarse weavers, who are often not whole-time weavers, whose products are less specialised and more exposed to mill competition

1 Indian Industrial Commission 1916-18 Appendix I p. 394.

2 op. cit. page 388.

and who find it more easy to take to unskilled labour.¹ In support of this conclusion the report states that the statistics relating to the consumption of yarn by hand-weavers indicate that "up to the outbreak of the war there is definite evidence to shew that the weavers of India were not only using more yarn, but that, so far as imports were concerned, there was a very marked increase in the consumption of fine counts."²

Since the above report was issued a determined effort has been made by the different provincial Departments of Industries to foster and encourage hand-loom weaving and to endeavour to persuade the artisans to adopt up-to-date methods.

The villager pursues the time honoured customs with regard to the methods of producing *gur* (unrefined sugar) from sugar-cane in spite of the fact that these methods have been condemned as extravagant and wasteful for some time past. This is all the more surprising when the import figures relating to sugar are studied. The value of imported sugar in 1913-14 (pre-war year) was 1429 lakhs and the amount imported that year was 803,000 tons. In 1919-20 the value had risen to Rs. 2184 lakhs though the quantity had fallen to 408,700 tons³. The total area devoted to the cultivation of sugar-cane in India lies between $2\frac{1}{2}$ and 3 million acres and varies slightly from year to year⁴. The total outturn is between 3 million and $3\frac{1}{2}$ million tons. In spite of the considerable imports and the establishment of a certain number of large scale factories in India the village industry is still holding its own. The United Provinces account for almost half the total acreage of sugar in India. When investigating conditions in that Province in 1907, Mr. Chatterjee observed that at that time there were only two sugar factories conducted according to up-to-date methods⁵. By 1915 the number of sugar-cane factories employing 50 or more persons had increased to nine, and in 1920 this number had only increased by 1; the total number of persons

1 Op. cit. page 393 *et seq.*

2 Op. cit. page 395.

3 Review of Trade of India 1920-21 page 8.

4 Report of Indian Industrial Commission 1916-1918 Appendix C page 341 and page 349

5 See Notes on the Industries of the United Provinces by A. C. Chatterjee, I. C. S., Chapter VII, Sugar.

COURSE OF THE INDUSTRIAL REVOLUTION IN INDIA 35

employed being 2840¹. Mr. Chatterjee found that in the village industry stone and wooden mills were still worked in many districts, although the superiority of iron-mills for crushing purposes had already been fully demonstrated. Not only were the crushing processes wasteful in the extreme but the conversion of the juice into *gur* was no less uneconomic. Conditions seem no better in other Provinces. After the United Provinces the Punjab comes next in acreage and in outturn.

The milling of flour and the husking of rice which are important village industries are being taken up only gradually in power factories. The introduction of suitable machinery for these purposes is impeded by the expense entailed. When machines are made in India a rapid development may be expected. No useful comparable figures are at present available for the whole of India by which one could trace the growth of the factories in these food industries.

Similarly it is particularly difficult to trace the growth or decay of industries such as pottery and those connected with metals. These industries supply local needs and are therefore sure of a ready market. Figures relating to them are however not available as they do not enter into the export trade. The material used, in the case of metal, is to a certain extent imported but old vessels are often melted down again and consequently figures relating to quantity of metal consumed do not always give an accurate indication of the amount of labour done. The gradual congregation of workers even of this class into domestic workshops and the independence of the man who does the final artistic work have been interestingly traced in the Notes on the Industries of the United Provinces. The attempt made by the local Provincial Departments of Industries to organize the 'artistic' trades and handicrafts should ultimately add much to their prosperity. India's participation in successive years in the British Industries Fair where many samples of such goods are exhibited should also help the export trade in such articles. There is undoubtedly a wealth of artistic ability available among the artisans who pursue these trades. Careful organization is required to prevent this talent from deterioration, signs of which are unfortunately

¹ Annual report on working of Indian Factories Act 1920, Statements I & II pages 9 & 14.

already apparent. But while encouraging the increased trade in such articles care should be taken to ensure to the artisans who do the work sufficient remuneration to enable them to produce artistic work.

As important as the more tangible results of the Industrial Revolution on village life is the intellectual awakening that has taken place. Immemorial custom has ruled General, Social and Intellectual effects in India, but these customs are now being compelled to give way in the face of modern conditions of trade and commerce. When a man lived in a comparatively isolated community not only was his range of ideas limited by that community but his manners and habits were also limited. He did what his fathers and grand-fathers had done for hundreds of years before him. He ate and drank only food that had been prepared in a prescribed manner and kept himself aloof from those persons whose touch or shadow could cause pollution. Once a man becomes a citizen of a vast city many of these customs must be cast aside. He can scarcely escape contamination. Men of low caste may brush against him and even the preparation of his food and drink, matters which are of vital importance in the village, may have been undertaken by persons he considers 'unclean'. The ceremonial ablutions before each meal have also in a great many cases to be foregone. The kind of work he does was beyond even the wildest imagination of his fore-fathers. Men from all parts converse with him and he awakes to the fact that his narrow range of ideas must be widened if he is to maintain himself successfully in his new environment. When such a man returns to his village he acts like yeast in bread and helps to spread new ideas and awaken new desires among his former companions.

CHAPTER III

THE SOURCES OF LABOUR SUPPLY

Agricultural life is still the lot of the vast majority of the people of India. Industrial life is entered upon, as has already been shown, for long or short periods, but **Introductory** mainly to supplement the earnings obtained from agriculture and to obtain capital for agricultural purposes. Industrial workers are recruited from agriculture and to a lesser extent from the artisan classes in the villages. It has been stated in the introductory chapter that in India factory life is so different from village life that frequently a villager finds that he cannot adapt himself to factory conditions. Some of the causes of these difficulties will be understood if a fuller account is now given of the environment from which men are drawn into Indian factories. Conditions vary so much in the different Provinces and even within the limits of a Province that, while it is possible to generalize to some extent, it will also be necessary to study each Province and to note the peculiar characteristics of the life and character of its inhabitants.

On visiting a typical village one would find that about half of the inhabitants were landlords and cultivators, and one quarter **A typical village in India** were labourers or farm servants, the remaining quarter being made up of stock owners and herdsmen, of cotton workers and of artisans who supply the needs of the village by making earthenware pots, leather shoes and buckets, clothes and jewellery. A small proportion of money lenders and grain dealers are also found, as also barbers, washermen and scavengers. The type of village is mainly determined by its locality and its inhabitants. In some provinces one finds villages which are carefully planned and kept beautifully clean. Each house has a little courtyard and the houses are grouped symmetrically. In other parts one finds a group of huts put together with no method or design and the whole place is indescribably dirty. The different types of villages and

the kinds of houses in which the inhabitants live will be described in greater detail for each province.

In some cases the inhabitants of a village are mostly composed of the same caste or are all Mussalmans of a particular denomination. It is more usual, however, to find a **Caste-organization** number of castes in each village although some one caste may predominate. The caste to which a man belongs determines to a certain extent not only his occupation, but also his entire mode of life. On the day when he is initiated into the caste in which he was born it is finally settled with whom he may eat or from whose hands he may take water. Not only is his bride selected for him by his parents but their choice is strictly limited. When he marries or dies certain rites are to be performed in a manner handed down from antiquity, if he is to expect happiness in this world or in the world to come. If he is fortunate enough to belong to one of the higher castes he has a good social standing, but if he is a worker in leather, or belongs to the scavenging class, he may find himself compelled to live on the outskirts of the village as his proximity may cause pollution.

A very strict surveillance is kept over the members of a village by each other. Should a man or woman either advertently or inadvertently break a caste rule, there is **Caste-discipline** a solemn gathering of his fellow-castemen to decide whether he is to be outcasted or what penalty he has to suffer. The social ostracism, involved in being turned out of the caste, is a strong deterrent against an infringement of any of the caste-rules. The caste assembly is known generally as a '*panchayat*' and its decisions are binding, because the various members are all interested in seeing that its decrees are carried out. When the majority in a village belong to the same caste there is also sometimes a general village council which decides matters affecting the village as a whole.

Agriculture, as has already been stated, is the chief occupation of the villagers. Approximately two-thirds of the **Village occupations** agriculturists till their own fields and the remaining one-third are employed as labourers either on day to day terms or as annual servants. There are naturally slack seasons and times

of bad harvest. At such times the landless labourers either leave to work in places where the harvest is earlier or later, or they seek employment in mines, mills and factories or in other forms of organized employment. Subsidiary occupations are carried on at home during these seasons. In the Central Provinces men and women go great distances during these times to cut grass or to collect fire-wood for sale. The potter is always busy. Not only are the earthenware pots he makes constantly needing renewal on account of breakages, but they are deliberately broken and renewed whenever a ceremony of purification takes place. The barber not only performs the usual and ceremonial operations of hair-cutting and shaving but his advice is frequently sought in cases of illness and he is always at hand to lance boils or to perform minor surgical operations. His advice and help are also made use of when marriages are being arranged. The leather workers, known generally as Chamars, find themselves looked down upon by the majority of the inhabitants, and the Mehtars who remove night soil, are regarded as belonging to the lowest social grade.

Generally speaking this is the environment from which the labour supply of organized industries is drawn. The villages are so unlike large and crowded cities that the change is at first very bewildering. The forms of organized employment that do not involve life in a city are consequently more sought after, especially if the work is akin to agricultural work, or if it can be combined with agriculture. The features of village life which are peculiar to each province and the principal castes of the inhabitants from which the labour supply is drawn now remain to be described.

(i) BENGAL

The province of Bengal presents no great diversities of physical characteristics or of climate. The density of the popu-

**Geographical
Features**

lation varies in different parts, but on the whole the province is very thickly populated, its average density being only exceeded by that of certain districts of the United Provinces. Since 1872 the population has increased by 12,576,360 persons and in 1921 consisted of 46,695,536 persons.¹ The country is traversed on all sides by rivers which have converted it into a low-lying alluvial

¹ Census of India 1921 Vol. I. India Part II Table II Variation in Population since 1872 pages 6 and 7.

plain with large deltaic areas. The central portion which contains Calcutta and the 24-Parganas is the most densely populated part of the province. It is also important from an industrial point of view as towns and factories have been extensively built on the banks of the Hooghly. The western portion of the province which contains the two large industrial centres in the districts of Hooghly and Howrah and the important coal fields at Raniganj comes next in density. Rice is the principal crop of the province but jute which is of great commercial importance is also grown extensively. The chief jute cultivating tracts lie in the north and east Bengal.

In Bengal the great majority of the population (936 per mille in 1911)¹ live in villages and carry on rural occupations. These

Typical villages villages either consist of small groups of houses planted amid the rice and jute fields, or of colonies of houses on the banks of the rivers, built close together. The Bengalis endeavour to secure privacy in their home-life by surrounding their houses with fruit trees or bamboo thickets. Bengal villages are, in comparison with villages upcountry, extraordinarily clean.

The houses consist of small groups of huts frequently built round a courtyard. A family may own several huts and in that case two huts are reserved for sleeping purposes for the different sexes while a third is used for cooking. The fourth, if there is one, serves as a room for receiving guests. Owing to the excessive dampness of the soil these houses are generally built on plinths or platforms raised from the ground. The walls too are of mud or of matting supported by bamboos or reeds. The roofs are thickly thatched, but are also in some cases tiled or covered with corrugated iron. Types of houses naturally vary in different parts of the province, as they have to be adapted to a differing climate. A very interesting and detailed account of the kinds of villages and houses in the deltaic area is given by Mr. J. C. Jack in his book entitled "The Economic Life of a Bengal District". In that survey he brings out very clearly certain important facts relating to the lives of the villagers. He points out that the villagers are quite unaccustomed to paying rent for their houses which, in the majority of cases, they have built themselves and that seldom, if

¹ Census of India 1911 Vol. V Bengal, Part 1, Report page 32.

ever, do families inhabit one hut only. Prosperous families have five or six separate huts enclosed in a space of ground which has fruit trees, a vegetable garden and a pond used for bathing. Poorer cultivators content themselves with smaller enclosures of ground and fewer huts, but even the poorest contrive to have a separate hut for cooking purposes¹.

A feature which is common to all houses is that owing to the joint family system of living they have to be adapted to accommodate several families in the European sense of the word. The various members of a family all live together during the life time of their father and in some cases as long as their mother lives. When the sons marry, their wives and children have also to find accommodation. There are signs however that owing to increasing economic pressure the joint family system is gradually, though very slowly, disappearing, especially among the lower middle and poorer classes. The disruption or partition of a joint family naturally causes a demand for new houses and this tendency will inevitably increase in future.

In Bengal at the time of the Census in 1911 the Mahomedans were slightly more numerous than the Hindus. An interesting table² prepared at that time makes it possible

Principal Castes to compare the numerical importance of the different castes. Among the Hindus the cultivating castes were the most numerous and accounted for approximately 17·2 per cent of the total population. The principal cultivating castes are *Kaibartta (Chasi)*, *Namasudra* and *Rajbansi* and next come *Pods* and *Sadgops*. The labouring castes accounted for about 3·4 per cent and among them the largest numbers belong to the *Bagdi* caste, and next come the *Bauris*. The forest and hill tribes also accounted for about the same number. These tribes include a large number of *Santals* and a comparatively small number of *Oraons*, though their real domicile is outside the province. The priestly castes are slightly larger in numbers than the forest and hill tribes and among them *Brahmans* predominate, though *Baishnabs* and *Bairagis* are also included. Among the artisan castes the weavers are by far the most numerous and

1 Economic life of a Bengal district by J. C. Jack page 21.

2 Census of India 1911 Vol. V Bengal Part 1, Report page 521, Subsidiary Table I.

account for approximately 2·5 per cent of the total population. The most important Hindu weaving castes are the *Jogi* and *Jugi* and the *Tanti* and *Tatwa*: among Mahomedans weavers are known as *Jolahas*. The other artisan communities include such castes as Potters or *Kumhars*, blacksmiths known as *Kamars*, and *Lohars*, oil pressers known as *Teli* and *Tili* and large numbers who do leather work and are called *Chamars* and *Muchis*. Among the remaining castes fishermen, boatmen and palki bearers taken together are about as numerous as the weaving caste. Graziers and dairymen belong generally to the *Goala* caste and accounted for 1·4 per cent of the total population. Then there are barbers known as *Napit*, and washermen or *Dhobas*, domestic servants, sweepers and others who perform personal services, but who are not numerically very important.

These castes all follow, to a greater or less extent, their traditional occupations. Many combine their traditional occu-

Village occupation pation with agriculture or have given it up for agriculture. Consequently it is not surprising to find that in Bengal in 1911

no less than 65 per cent of the total number of Hindus and 86 per cent of the total number of Mohammedans were supported by agriculture¹. Some estimate can be formed of the extent to which traditional occupations are being given up for land cultivation or industrial work by comparing the data collected at the Census of 1911² and 1921.³ The most striking feature of these returns is the fact that while on the whole the cultivating castes are still employed in agricultural pursuits and to a small extent in industrial occupations, the artisan castes have largely abandoned their traditional occupations and are continuing to do so to an increasing extent in favour of agriculture or industry. Another interesting fact that comes to light is the way in which castes of all kind are to be found in all kinds of occupations. The rule that a man must undertake his hereditary calling now only holds good to a limited extent. Thus, for instance, members of the following castes *Bagdi*, *Bauri*, *Brahman*, *Chamar*, *Dhoba*, *Goala*, *Jogi*, *Jugi*, *Kamar*, *Kumbar*, *Napit*, *Teli* and *Till*, were

1 Census of India 1911 Vol. V Bengal Part I, Report page 550

2 Census of India 1911 Vol. V Bengal, Part II, Table XVI, page 362 et seq.

³ Census of India 1921 Bengal, Vol. V, Part II, Table XXI.

found not only engaged in various agricultural operations, but they all had to a greater or lesser extent contributed men and women to mining, industries, transport and trade, to the professions and the liberal arts and to domestic service.¹

The extent to which rural industries were still holding their own in 1911 against factory industries and other organized industries may be observed by comparing the number of workers in the latter with those in the former. The total number employed in industrial and manufacturing concerns was 606,305² and if this number be deducted from the total employed in industries generally³ the remainder consists of 1,178,621 persons. These latter persons are either working at home or in small industrial establishments which did not come within the scope of the Factories Act. Of these rural industries the most important are the textile and the industries connected with the preparation of food, but whereas in the former the men are three times as numerous as the women, in the latter there are more than six times as many women as men. The women are chiefly employed as rice pounders, huskers and flour grinders. Other important industries are those connected with wood such as carpentry and basket-making, metal industries in which the men largely predominate, industries connected with dress and toilet. Tanning and preparation of skins give employment almost exclusively to men while on the other hand large numbers of women are engaged in pottery work.

In the villages in Bengal caste customs still hold sway to a great extent. The best authority on this subject for Bengal and

Rigours of Caste-Government Bihar and Orissa was Sir Herbert Risley whose work entitled 'Tribes and Castes of Bengal'⁴ is generally regarded as being a classic on the subject. It does not fall within the purview of this thesis to deal with this subject in any detail. A brief outline will alone be given to serve as a basis of comparison when dealing with the conditions of employment in organized industries and the

1 Census of India 1921 Bengal Vol. V. Part II. Table XXI

2 Census of India 1911 Bengal Vol. V. Part I. Report page 526

3 Census of India 1911 Bengal Vol. V. Part II. Table XV page 212 *et seq.*

4 The Tribes and Castes of Bengal by H. H. Risley, 1891.

effect that such conditions have on time-honoured caste customs. The matters that are regulated by caste are, generally speaking, those that relate to the rites to be observed with regard to worship, birth, death and marriage. Certain rules are also prescribed with regard to eating, drinking and smoking. Further, while caste does not preclude a man from seeking an occupation other than his hereditary calling, he will be outcasted if the occupation of his choice is considered to be more degrading than his customary occupation. All these observances leave a man little freedom of action or thought. He must worship the divinities of his caste and perform certain religious functions in the manner prescribed. At the birth of a child certain ceremonial purifications have to be gone through and at death the gods of the other world must be propitiated. Marriages can only be solemnised between a man and a woman belonging to the same endogamous group and among certain castes infant marriage of girls still obtains. Polygamy is permitted and among high castes widows are not allowed to remarry, but among low castes they may do so and the same is true of divorce. A man is not permitted to eat with one of a caste lower than his own. The non-observance of these rules either entails outcasting or the infliction of a fine according to the seriousness of the offence.

Caste government is still of great importance, though there are undoubtedly forces at work tending to lessen its authority. Originally the authority of the caste to make and maintain its own laws was generally recognized and was upheld by the ruling power. The British Government does not attempt to adjudicate on caste but leaves such matters entirely to caste councils. The controlling agency among higher castes seems to have fallen into desuetude, but when any of their members have transgressed the caste code they are either automatically ostracized or a meeting of the important members of the caste is held to settle the matter. Among the lower castes there are generally officials to whom complaints can be made and who, if the matter is sufficiently serious, convene a meeting of the principal members of the caste or of the entire caste. Such a meeting is called a *Panchayat*, which literally means a meeting of five men, though the actual numbers in most cases far exceed that number.

An interesting reference is made to the Trade Guilds in the 1911 Census Report.¹ According to that report, guilds flourished in Bengal and Bihar and Orissa in Buddhist times though they are now in the proper sense of the term unknown. Such guilds are however still to be found in Bombay, Gujerat and parts of northern-India. Originally they were very powerful and punished breaches of contract and even banished offenders. In Bengal and Bihar the councils of the artisan castes have to a limited extent taken over some of the functions of the guilds. Thus, they fix trade holidays and lay down rules regarding traditional occupations. They deal severely with men who endeavour to get clients who are already 'bespoke.' A carpenter may not make ploughs for a man for whom another carpenter already works. In some parts these rights are regarded as hereditary and can even be sold or given in mortgage. The *Panchayat*, or meeting of the caste, has the power to outcast a man who ventures to disregard these rules. If a man changes his occupation he runs the risk of being outcasted. These are, however, at the best, negative functions. There is no attempt to improve conditions of working or to regulate wages or hours. Further there is no organization to weld together members of different castes who follow the same occupation.

This sketch of village life in Bengal gives some indication of the kind of life led by many a villager. So long as he is content not to do anything to disturb the settled plan he will be left, on the whole, to pursue the even tenour of his life, undisturbed by criticism or punishment. If, on the other hand, he is of a questioning turn of mind and is not content with the status assigned to him or desires to marry a person of another rank then he finds that he has aroused the antagonism of his fellow-villagers. If he is rich and influential he may be able to succeed in living his life according to his own ideas, but if he is poor he may incur social ostracism and may be compelled to leave the village because of the solitude to which he finds himself condemned. On the whole, however, life for the great majority is happy. Their meagre wants are satisfied and they have the society of those who think and feel just as they do on all important matters relating both to this life and the hereafter.

1 Census of India 1911 Vol. V. Bengal Part I Report, page 488 *et seq.*

(n) BOMBAY

The province of Bombay, including Sindh, stretches almost from the north of India to the south. Rarely does it exceed more than 300 miles in width. In so vast a stretch of country there are bound to be great diversities of climate, of physical characteristics and of inhabitants. The province cannot therefore well be treated as a unit. It is, in fact, usually found convenient to divide it into five main divisions, namely Sind, Gujarat, Deccan, Karnatak and Konkan.

Geographical features Bombay contains some very important industrial centres such as Bombay, Ahmedabad and Sholapur, but, as in other provinces, so here also, the majority of the inhabitants are agriculturists. In Sind, there are large tracts which, being desert and devoid of water, are uncultivated. Gujarat consists chiefly of a flat alluvial plain watered by the Tapti, Narbada, Mahi and Sabarmati. Cotton is the principal crop and furnishes the chief occupation of the inhabitants. There is also a mountainous tract inhabited by *Bhils*, but on the whole this part of the province is fertile. The Konkan is the narrow strip of land lying between the Western Ghats and the sea. It has a very heavy rainfall which favours the growth of rice and as it is bordered by the sea many of the inhabitants are fishermen. Its dense population is, however, incapable of finding means of subsistence throughout the year and consequently many migrate into the city of Bombay to take up work in mills and factories. This is especially so in the case of the Ratnagiri district. The Kanara district which is included in the Konkan division is mainly covered by forests. The Western Ghats form the natural boundary between the Konkan and the Deccan in the north and between the Konkan and the Karnatak in the south. These Ghats prevent the rain clouds in the monsoon season from penetrating into the Deccan which consequently receives only a light and precarious rainfall. The Karnatak is better situated, as it gets the advantage of the North East as well as the South West monsoon. Both the Deccan and the Karnatak contain a hilly tract, a central tract and a black soil plain. The population live chiefly in the central tract while the hilly portion comes next in numbers. The black soil plain has on the whole a scanty and precarious rainfall and a somewhat sparse population.

The villages in Bombay reflect these physical differences. In parts where the rainfall is heavy and rice the principal crop the houses are scattered among the fields and are generally thatched. Where rainfall is scarce the houses are built of mud with flat roofs. In the Maratha country the houses are closely congregated together and protected by village-walls and gates, a survival of the time when the inhabitants had to live together for the sake of safety.

Unlike Bengal the Hindus are very much in the majority in this province, forming in 1911 no less than 77 per cent of the whole population¹. They are scattered all over the province and in Sind alone are they outnumbered by the Muhammadans. Agriculture at that date supported 64 per cent of the total population² and in 1921 the figure for the whole province only shewed a very slight variation.³ The cultivating castes are consequently in the majority, and the majority of the Mussalmans are also agriculturists. Among the cultivating castes the *Marathas*, *Kolis* and *Kunbis* are most numerous. The artisan castes many of which also undertake cultivation are also numerous. They include such castes as potters, blacksmiths, oil pressers, tailors and washermen. The weaving communities include many castes such as *Koshti*, *Hatgar*, *Jed*, *Vinkar*, etc., and numbered at the last census 222,536 persons⁴. The field labourers include such castes as *Dhodia*, *Dubla*, *Kokna*, *Thakur* and *Varli*.⁵ The shepherds, who frequently combine wool-weaving with their principal avocation, accounted in 1911 for over 3 per cent of the total population. Village-watchmen and menials among whom are included such castes as *Dheds*, *Holiyas*, *Mahars* and *Mangs* accounted in 1911 for 6.4 per cent. The *Brahman* caste is also well represented, but there are a comparatively small number of men belonging to the low leather-working castes.

The industrial workers are recruited from the cultivating castes as well as from the labouring and artisan castes. Fuller details will be given in the subsequent chapter which deals with

¹ Census of India 1911 Vol. VII, Bombay, Part I, Report page 55.

² Op. cit. page 314

³ Census of India 1921 Vol. VIII Bombay Presidency Part I, Report, page 211.

⁴ Census of India 1921 Vol. VIII Bombay Presidency Part I, Report, page 185.

⁵ Census of India 1911 Vol. VII Bombay Part I, Report pages 209-10.

the labour supply of organized industries. The rural occupations and customs of some of these castes will now be examined.

Agriculture, as has been seen, provides the principal occupation for the majority of the inhabitants of the villages. Textile

Village Occupations Industries are still largely carried on at home. Some idea of the extent to which this is done may be obtained from the figures collected

at the last census. According to the figures given there¹ the home weavers and their dependants both in cotton and wool outnumber the factory workers and their dependants. The former are only slightly less numerous than the employees in cotton ginning factories and in cotton spinning they account for about 35 per cent of the total of spinners. The figures also show that the weaving of woollen blankets and woollen carpets and also silk spinning and weaving are still practically confined to home-workers. As in Bengal so here also the food industry, the leather industry and the making of earthenware pots give employment to large numbers of home-workers. The industries connected with personal requirements such as clothing and washing etc also include large numbers. The statistics collected for Bombay bear out the same facts that have been mentioned in the case of the castes in Bengal, namely that many artisan castes are taking up agriculture and that representatives of many different castes are to be found in all the different occupations that are now open both in industry and trade².

It is impossible to describe within the limits of this thesis the peculiarities of each caste. The customs of those castes which

Some typical Caste customs mainly supply the labour force in factories will alone be examined. The statistics compiled in 1921 shew that the *Mahars*,

Holiyas or *Dheds*, whose traditional occupation is that of village servants, had largely gone into industry. The *Kohs* and *Kunbis* from among the cultivating castes have also done the same³. It will suffice then if a brief description be given of these castes based

1 Census of India 1921 Vol. VIII Bombay Presidency Part II, Table XVII, page 212 *et seq.*

2 Census of India 1921, Vol. VIII Bombay, Presidency Part II, Table XXI A, page 362.

3 Op. cit. Take XXII Parts IV and V.

on the information collected at the 1911 Census¹. The term *Mahar*² is a name given to an assembly of

(a) **Mahars** tribal units found throughout the greater part of the province, wherever Marathi is

spoken. Although now constituting a low caste they have strict rules regarding the persons with whom marriage may be contracted. Widows are allowed to remarry and divorce is permitted. They are Hindus by religion, worshipping a special set of deities: they also go in for totem worship. In some parts of the country they have formed a more or less elaborate organization for enforcing caste rules. A number of villages are grouped together and over each group is a headman called a *mehetar*, who in his turn is presided over by the chief headman of all the villages. The *mehetar* is assisted in his decision by 3 to 5 men selected from the villagers under his charge.

The *Dheds*³ are also the survivors of primitive tribes and are found in Gujarat, Kathiawar and Cutch. They hold that their

(b) **Dheds** original occupation was the spinning and weaving of coarse cotton thread, but at the present time they are mostly field-labourers and village servants. They have an elaborate code relating to marriage and though of a low caste themselves they refuse food from certain other castes. They have also an organized system of caste government and the *Panchayat* has the power to inflict fines.

The *Holiyas*⁴ are also aborigines found chiefly in the Karnatak and parts of the Deccan. They too are regarded as

(c) **Holiyas** unclean, but have much the same elaborate caste organization as the Dheds and Mahars.

The term *Koli*⁵ is the name given to a collection of various tribes who are regarded by some as the aborigines of the plains.

(d) **Kolis** The *Son Kolis* who are chiefly found in the Konkan along the sea-coast are fishermen. Unlike the majority of castes their caste

1 Census of India 1911, vol. VII, Bombay, Part I, Caste glossary, page 229,
et seq.

2 Op. cit. page 287

3 Op. cit. page 253

4 Op. cit. page 265

5 Op. cit. page 272

jurisdiction is mainly concerned with professional questions such as the law of navigation and fishing rights. The decision in such cases rests with the *patel* or hereditary chief of the village. The ultimate authority is vested in the *Sar Patel*. The caste is divided into families and within such groups marriage is prohibited. The women are important members of the caste : they sell all the fish caught in fishing boats, manage the household affairs and look after the household funds.

The *Kunbis*¹ do not represent any particular caste : the term *Kunbi* signifies cultivator. Those who apply this name to themselves are generally landholders and husbandmen. The customs and traditions of

(e) *Kunbis* *Kunbis* in different parts of the province are extraordinarily diverse. They are found in all the divisions except Sind and the *Kunbis* of each division have each their own characteristics. Thus the *Maratha Kunbis* are scarcely distinguishable from Marathas generally and they have a similar social organization. In the Konkan the *Kale Kunbis*, as they are called there, live in isolated villages near forests. Each settlement has a headman in whose house caste meetings are held.

An interesting account of caste government is also given in the same census report.² An attempt is made to trace how far

Modifications in caste discipline caste-government is breaking down as a result of the changing conditions of life.

Religious control is said to be strongest in the south of the province and laxest in Gujarat where trade has made more headway. The matters that come within the purview of caste *Panchayats* are very similar to those in Bengal. A modern development is mentioned whereby certain castes help in the education of their poorer members and also pass regulations fixing the amount that may be spent on marriages and other ceremonial observances. Professional matters are rarely dealt with by caste councils. The greater freedom of choice of occupation for the different castes which was noted in Bengal also holds good in Bombay. Thus, for example, "trade, the medical profession, dhobis' and tailors' work are now undertaken by castes

¹ Census of India 1911, vol. VII, Bombay, Part I, Caste glossary, page 278

² Census of India 1911 Vol. VII, Bombay Part I, Report page 199 *et. seq.*

which would have looked askance on any such enterprize 50 years ago."¹

In spite of this gradual breaking down of authority there is no doubt that the caste customs, described above, do undoubtedly form a most important part of a man's mental equipment and colour his thought and actions to a considerable extent. They also tend to crystallize ideas and to prevent men from being willing to accept changes. The environment of a large industrial city is not only altogether strange to a man from a remote and self-contained village, but he also finds himself in a wholly different mental atmosphere. Matters which were for him of serious import and which would cause excommunication are lightly regarded in the city of his sojourn. He cannot, for instance, always be sure whether the food he eats is clean *i.e.*, whether it has not been touched by a man of low caste. Or again he may find himself obliged to work near a man whose proximity is sufficient to cause pollution. This extraordinary mental equipment of the emigrant from a village is among the serious difficulties with which the manager of a factory has to contend. Then too there are the great diversities of language. A man may find himself comparatively isolated, even from his fellow workers, and certainly incapable of making his wishes known to the management because he speaks a comparatively strange language. This difficulty is very much accentuated by the fact that the immigrant population in a town such as Bombay contains representatives from all parts of India. These men have come to seek factory employment and it is in factories especially that these great diversities of language make management and control so difficult. Side by side with these diversities in language are the differences of customs prevalent in different parts of India. To weld together into a contented labour force men of such diverse ideas and customs is no light task. The congestion in industrial cities also adds considerably to the difficulties of the labour problem.

(iii) BIHAR AND ORISSA

In Bihar and Orissa no less than 81 per cent of the total population were dependent in 1911 on agriculture for their livelihood and only 12½ per cent on the preparation and supply of

¹ Census of India 1911, Vol. VII, Bombay Part I, Report page 202

material substances.¹ The majority of the population consequently live in villages, there being only 68 towns in Bihar and Orissa with more than 5,000 inhabitants.²

The province of Bihar and Orissa comprises three distinct divisions, Bihar, Orissa and Chota Nagpur. The physical features of these three divisions affect both the inhabitants and their mode of living and are sufficiently different to justify their being treated separately. With the exception of the southern portion Bihar is densely populated, the density being in 1911 over 900 persons per square mile in certain tracts.³ Except in the south, this part of the country consists of a flat alluvial plain entirely given up to cultivation. In the south forests and hills prevent cultivation and are accountable for the comparatively low density of population. Orissa consists of five districts, three of which border the sea. The central portion of each of these districts consists of rich cultivated plains but the sea coast and the hilly tract that bounds these plains on either side are unfertile. The Chota Nagpur plateau is on the whole an unfertile area and consequently has a very sparse population the average density being 186 persons per square mile in 1911.⁴ It consists of plateaux, hills and valleys. Parts are cultivated but the larger portion of the land is covered with forest. The Jheria coal fields in Manbhum are accountable for the comparatively large number of inhabitants in that area, while the Sonthal Parganas which are inhabited by the hardy race of *Santals* is a fertile source of labour both for coal mining and for other forms of organized industry requiring men and women of that type.

The types of villages vary in each of these three divisions. An interesting description of these different types is given in the Census Report of 1911.⁵ In Bihar for instance, the villages are situated for the most part in the open plain and are surrounded by dry cultivation, though some perchance have to be

¹ Census of India 1911, Vol. V Bengal, Bihar and Orissa, part I, Report page 533.

² Op. cit. page 30.

³ Op. cit. page 17.

⁴ Op. cit. page 21.

⁵ Op. cit. page 41.

built on the edges of swampy depressions. Owing to the density of this part the villages are very crowded and many contain more than 2,000 inhabitants. The houses are made of mud and are heavily thatched, but among the poorer classes, the huts are frequently made of reeds. In Orissa, on the other hand, each house has a small compound containing a vegetable garden. The group of houses making up the village is generally surrounded by trees and also contains a village tank. In Chota Nagpur which consists of well wooded hilly and undulating tracts the villages are generally built on a ridge or near the crest of a slope close by a reservoir which is used to irrigate the fields. The Santals, residing chiefly in Chota Nagpur, build remarkably fine villages. A main street runs down the centre and on either side are spacious mud houses which are wonderfully well constructed. Several huts are grouped together round a courtyard, behind which is a plantation. The villages are kept beautifully clean.

While in the neighbouring province of Bengal the Mussalmans and the Hindus are approximately equal, in Bihar and Orissa in

Principal Castes 1911 the Hindus were nine times as numerous as the Mussalmans.¹ From statistics collected at the 1911 Census² it is possible to form an estimate of the comparative size of the different castes. The cultivating tribes are in the majority. Of these the most numerous are *Koiris* and *Kurmis*, *Chasas* and *Dhanukas*. The forest and hill tribes which come next also depend principally on cultivation for their livelihood. Amongst them the most numerous are the *Santals* and next in importance are the *Bhuiyas*, the *Hos*, the *Kandhs*, the *Mundas* and the *Oraons* all of whom occupy the Chota Nagpur plateau. Almost as numerous are graziers and dairy men among whom the *Goalas* predominate. The priestly castes and devotees including the *Brahmans* and the *Baishnabs* accounted for more than 2 millions. Fishermen, boatmen and palki-bearers accounted for more than one and a half million, while the labouring castes numbered more than 1 million. Oil pressers, leather workers and village watchmen each also amounted to more than one million.

1 Census of India 1911 Bengal, Bihar and Orissa, Vol. V Part 1, Report page 199.

2 Op. cit. page 521 *et seq.*

The fact that many of these castes are giving up their traditional occupations is abundantly evident from the figures that were compiled in 1911 to show the occupations of selected castes.¹ The landholding and cultivating castes proper, such as the *Koiris*, *Kurmis* and *Chasas* were at that date still largely engaged in cultivation. This was also the case among the forest-hill tribes although *Santals* are to be found in the coal fields and the *Oraons* and *Mundas* seek employment in the tea gardens of Bengal in large numbers. On the other hand, *Brahmans* have been compelled to give up their priestly avocations and are now to be found in large numbers among the cultivating caste and also in the various trades and professions demanding intelligence. The artisan castes are largely engaged in cultivation in place of or along with their traditional occupation. Thus among Hindu weavers (known as *Tanti* and *Tatwa*) in Bihar and Chota Nagpur large numbers were returned in 1911 as field labourers and cultivators and only about one quarter returned weaving as their principal occupation. The Mussalman weavers known as *Jolahas* had taken up other avocations to an even greater extent. Hand-weaving received a great impetus during the war as the import of textile machinery was largely stopped. Some indication as to how far this recovery is a permanent feature will perhaps be obtained from the Census Report of 1921 for this province.² In 1911 the other artisan castes such as oil-pressers, wine-sellers and workers in leather were also engaged in cultivation in large numbers. The tendency for landless labourers to pursue a more profitable way of earning their livelihood than by tilling other persons' fields is exemplified by the *Bauris* many of whom have taken up coal-mining. The importance of the home industry of cotton-spinning and weaving is indicated by the fact that though in 1921 there were no cotton spinning or weaving mills in the Province no less than 227,281 persons were engaged in these operations.³ The principal weaving castes, the *Tantis*, *Jolahas*,

¹ Census of India 1911, Bihar and Orissa, Vol. V. part III, Table XVI, page 236.

² This Report is not yet available.

³ Census of India 1921, Bihar and Orissa Table XXI Part B and see also to
" " " 1911, Vol. V, " Part III Appendix Table XVI page
250.

Gandas and *Pans* were predominant in numbers. These operations are however also undertaken by other castes whose traditional occupations are not cotton-spinning and weaving. Thus, for example, among those who undertake this kind of occupation are the *Gauris* and *Gauras* who are graziers and herdsmen and many forest and hill-tribes such as *Santals*, *Sahars*, *Savars* and *Oraons*. The largest number engaged in this kind of work were found in Orissa and in the Feudatory State, and in the Patna division.

As in Bengal so also in Bihar and Orissa, the organization of the caste is not as rigid among the higher as it is among the lower castes. Such castes as the *Brahmans*,

Caste-Government *Babhans*, *Rajputs* and *Kayasthas* have no regular system for bringing those who have

broken caste rules before their castemen for judgment¹. If however the offence has been openly committed and is of a serious nature the other members of his caste will cease to have any intercourse with him. Among the lower castes the *Panchayat* or general meeting of the caste deals with cases of delinquency. A man who has left his home to take up industrial work may find on his return that the non-observance of caste rules during his absence may cause him to be outcasted.

In Bihar and Orissa, more so than in other provinces, is a man's life determined by the caste or tribe to which he belongs. If he is an aboriginal who dwells in the forests he will spend a great deal of his time hunting and carrying on a precarious kind of agriculture. If he belongs to a caste that has settled down to regular agriculture, he will be an agricultural worker holding the rank of landowner, tenant or labourer. Should he find himself for any reason outcasted or should there be a failure in his crops he will easily find employment either in a mine or at the big iron and steel works now established in the province, but the contrast between that life and his life as a villager frequently compels him to return to his agricultural pursuits.

¹ Census of India 1911 Vol. V Bihar and Orissa Part III page 250 Appendix to Table XVI.

2 Op. cit. Part I Report page 461 *et seq.*

(iv) UNITED PROVINCES

The density of population in this province is only exceeded by that of Bengal, but in parts it is even more congested than Bengal. It is a very fertile tract being
Geographical features watered from one end to the other by the Ganges, with its numerous tributaries.

Besides the Ganges plain it also includes the mountainous region of the Himalayas, the plain below the mountains and the region in the south of the province known as the 'trans-Jumna tract'. The population in these three latter tracts is comparatively sparse and there is not the same pressure on the soil as in the Gangetic plain. It is true, however, that the inhabited tracts in the Himalayas suffer from a precarious agriculture and there is considerable seasonal migration of able-bodied men from the mountain villages to hill settlements such as Simla, Mussoorie and Nainital for employment as rickshaw coolies or domestic servants. These people, however, seldom take up regular industrial employment. The migration to organized industries whether to Cawnpore or out-side the province takes place mainly from the eastern districts where the congestion of population is severest and where there has been no marked development in irrigation facilities providing new outlets in agricultural employment. Rice is the principal crop in these districts and cultivators as well as day-labourers have long periods during the year of agricultural unemployment. The density of population is very great and sometimes rises to six and seven hundred per square mile. The holdings are small and the landlords are in many cases unenlightened. There are thus several factors encouraging at least temporary migration to factories, tea gardens and colonies.

The villages in Azamgarh and Partabgarh, two districts in the congested area, may be taken as typical of the homes from which these industrial classes are drawn.
Typical villages Both the districts are extremely densely populated and many of the inhabitants are therefore compelled to seek work elsewhere. It is not out of place therefore to describe how they live and to take them as representative of the people belonging to other districts in the province that are similarly situated. The following description of the houses in

the Azamgarh¹ and Partabgarh² districts is based on the older settlement reports for each district. In Azamgarh when that

(a) Azamgarh report was written—and changes come very slowly in India especially in the villages—

the walls of the great majority of houses were made of mud. In the villages the houses of the well-to-do have tiled roofs. The poorer peasants have to be content with thatched houses. The entrance to the hut is closed with a screen made of arahar (lentil) or tamarisk stalks and sugar cane leaves or long grass.

In Partabgarh the ordinary peasant lives

(b) Partabgarh in a walled enclosure constructed by building, in a rectangular form, two outer walls and two inner walls separated from each other by a distance of from seven to ten feet. The two sets of walls are then covered over with common thatch and this forms, with the aid of divisions, either four or eight rooms with an inner enclosure or courtyard. The doorways are merely vacant spaces which, when required, are closed with rough brushwood or grass screen. Such a house is not merely used as a dwelling place by the family but also shelters the cattle and is the granary where all the grain is stored for household purposes, as well as for seed at sowing time. Like the houses, the furniture is of the simplest. Captain Forbes, the writer of the settlement report quoted above, gives a detailed description of the articles³ in common use.

Turning next to the principal castes of the province one finds that Hindus are considerably in the majority, accounting in 1921

for 84·5 per cent of the total population,

Principal castes while the Mussalmans constituted 14·5 per cent⁴. Among the Hindus, according to the 1911 census, approximately 75 per cent were cultivators, 10 per cent agricultural labourers, 10 per cent industrial workers and 4 per cent were engaged in trade. Among the Muhammadans the proportions were quite different. About 50 per cent were engaged in agricultural occupations and of these only 4 per cent were agricultural labourers. No less than 25 per cent were engaged in

1 Azamgarh, sixth Settlement Report 1877 page 25 para 93.

2 Partabgarh, Report on the revenue settlement of the Partabgarh district 1877, page 76, para 168.

3 Partabgarh settlement Report para 169 *et seq.*

4 Census of India 1921, Vol. XVI United Provinces Part I, Report page 53.

industrial occupations and 7 per cent in trade.¹ Accordingly among the Hindus the cultivating and landholding castes are naturally the most numerous. The *Rajputs*, the principal landholding caste, numbered more than 3 million in 1921, but very few of them take up industrial work. Among cultivators the *Kurmi* and *Lodha* castes numbered in 1921 more than one million each and next came the *Jat* and *Kacchi* castes.² These castes are generally attracted to work which is somewhat akin to agriculture such as tea cultivating, and the manufacture of sugar.³ Next in importance come the pastoral castes among whom the *Ahirs* are largely in the majority. The *Ahirs* are also found in industrial occupations, in cotton spinning and weaving mills and in cotton ginning, in printing works, in sugar factories and on tea plantations.⁴ Priests and devotees numbered in 1921 more than 5 millions,⁵ but many of them had given up their traditional occupation in favour of trade, industry and the liberal professions. Among the artisan castes the *Chamars* or leather workers who numbered more than five and a half million in 1921 were only supported by their traditional occupation to a small extent in 1921 and had entered leather factories and cotton spinning or weaving mills and were to be found even in industries connected with the preparation of food materials such as rice and flour mills. Next in importance came the weaving castes being in the proportion of 48 per mille of the population of the province. The castes of toddy drawers, distillers and oil-pressers are also numerous and furnish recruits to industry. The *Kahar* or domestic servant caste which numbered more than one million in 1911 is an important United Provinces caste willing to undertake industrial work. The *Lohar* or village blacksmith mainly entered such industries as the making of sugar.

Regarding the home industries of the province a detailed account is given in a survey of "the industrial conditions and possibilities of the United Provinces"
Rural Industries by Mr. A. C. Chatterjee This survey was made in 1907, the figures therefore

¹ Census of India 1911, vol. XV, United Provinces Part I, Report page 411.

² Census of India 1921, Vol. XVI United Provinces Part I, Report page 155.

³ Op. cit. Part II Table XXI, page 410 *et seqq.*

⁴ Op. cit. Part II Table XXII Parts IV and V

⁵ Op. cit. Part I Report page 155

need to be brought up to date, but the information regarding home-industries still holds good to a large extent to-day. According to that account "sugar refining is perhaps the most important industry of the United Provinces¹. After sugar he considers that leather is the most important industry.² This industry, he points out, has "on the whole suffered considerably (1) by the large demand in Europe and America for Indian hides and skins and (2) by the competition of foreign made goods."³ The cotton industry still gives employment to large numbers of home workers. It is true that power gins have now been established in every important cotton district⁴ but hand-ginning at that date (1907) had not completely died out. In 1921 the numbers employed in cotton ginning, cleaning and pressing in British territory in the United Provinces was more than 50,000 persons whereas factories for these purposes employed only slightly more than 5,000 persons.⁵ So too hand-spinning had been hard hit by machine competition and women were only able to earn one anna a day, yet that industry too was still being carried on at home and, in Mr. Chatterjee's view, was likely to continue to do so, as it provided a small income for *Pardah* women and widows who were not prepared to leave their villages to enter factories Hand-loom weaving at that date provided subsistence for about a million souls "More than one-third the weight of cotton cloth consumed in the province was still the product of the hand industry". It is carried on in all districts, but the fine fabrics are woven chiefly in the east of the province The weavers are mostly Mahomedan *Julahas*. The importance of the home industries of cotton spinning and weaving can be gauged by comparing the numbers employed in factories with the total number so employed. The balance will give those who are employed at home. If this is done it is found that while 11,805 persons are employed in factories

1 Notes on the Industries of the United Provinces by A. C. Chatterjee, C.I.E., L.C.S., page 91, para 127.

2 Op. cit. page 98, para 132.

3 Op. cit. page 160 para 137.

4 Op. cit. Page 2, para 3 and page 12, para 24.

5 Census of India 1921, Vol. XVI United Provinces Part II Table XVII, Page 275 and Table XXII page 416.

over 400,000 persons are employed at home.¹ Cotton carpet weaving is carried on at Agra, Aligarh and Bareilly. The chief centres of the silk industry are Benares and Azamgarh. Silk weaving is mostly done by *Julahas* but all castes participate in the gold thread work. The three different classes into which the silk artisans of Benares are divided and which are described by Mr Chatterjee recall the different stages that home-industries went through in England before they became factory industries. There are first those who work for the bazar or local market and sell their goods themselves, then there are those who work for richer members of the weaver class and finally there are those who work for wholesale and retail dealers, not belonging to the weaving class. Mirzapore carpets are produced under much the same conditions and the weaver in this case also are *Julahas*. Another important industry is the milling of flour which is largely carried on as a domestic industry and gives employment to large numbers of women. Braziers and coppersmiths are found in all villages, but the industry is mainly localized in Benares and Mirzapur. The artisans who do this work are mostly *Thatheras* or *Kaseras* but a large number of other castes like *Sunar*, *Lohar*, *Bania* and *Ahir* are also engaged in it. The crushing of oil seeds is also an important indigenous industry.

As details of caste-government have been given for other provinces the matter will not be dealt with here. Mr. Blunt, who compiled the Census of the United Provinces in 1911,² has however furnished much useful information with regard to the power of the *panchayat* in professional matters. The practice expressed by the word '*Jamani*' is peculiarly interesting. Generally speaking the term is best translated as meaning 'a circle of clients' from whom fixed dues are received in return for regular service rendered. One man may not trespass in the circle of another. The artisan *panchayats* deal with all breaches of this rule and their authority is strongly upheld by the other members of the caste. Other matters are also dealt with and

¹ Census of India 1921 vol. XVI, United Provinces, Part II, Tables XVII, page 275 and Table XXII, page 417.

² Census of India 1911, United Provinces, Vol. Xv, Part I, page 342 *et seq.*

Mr Blunt gives many examples. The *Julahas* are said to have a loom-tax the proceeds of which go to fighting out with outsiders. A case of a regular trade guild is also given: "the Rajs (brick-masons) of Meerut are not a real caste, but an occupational group recruited from many castes (*Chamar*, *Khatik*, Muhammadan, etc.). They have a system of apprenticeship. When an apprentice is out of his indenture he presents a turban to his master and feasts the members on cardamums. The members of the guild remain members of their own castes as regards social matters".¹ These functional powers of the caste *panchayat* are however gradually breaking down because castes no longer follow their traditional occupation exclusively, but take to other trades provided they are not of a derogatory nature. These examples are however of interest as shewing that joint action with regard to matters affecting the industrial well-being of the community is not altogether strange. Such facts may serve as a useful basis for the guidance of the trade-union movement in organised industries.

(v) MADRAS

The province of Madras presents many diversities of climate and physical characteristics, affecting considerably the occupations of the inhabitants who are also very heterogeneous in race. The province may be divided into six natural divisions. In the north is the Agency division inhabited by hill tribes known as *Khonds* and *Savaras*. They are engaged in earning a somewhat precarious livelihood by agriculture, but on the whole are content to remain in their own country. The density in this division varies from 22 persons per square mile to 160.² Just below is the East Coast north division rendered fertile by the deltas of the Godavari and Kistna rivers. The cultivation of rice is the principal occupation of the inhabitants and supports a population on an average of 345 persons to the square mile.³ The language spoken is Telugu. In striking contrast is the Deccan division graphically described by Mr. Molony, the Census Superintendent in 1911, as consisting of "great black plains, aching wilder-

¹ Census of India 1911, United Provinces, Vol. XV, Part I, page 343.

² Census of India 1921, vo. XIII, Madras Part I, Report page 19

³ Op. cit. page 27. •

nesses of stone, bare dusty roads and summer air half dust and wholly heat." The inhabitants carry on an unequal struggle with nature and when there is a scarcity of rain are inevitably faced with famine. The population is accordingly very sparse, being on an average only 139 persons to the square mile. To the south of the Deccan lies the East Coast central division which is inhabited by the Tamil peasant who is aided in his efforts by the comparative fertility of the soil. Further south is the East Coast South division where the deltas of the Cauvery and Tamba-parni and the rich cotton fields of Madura and Tinnevelly support on an average more than 400 persons to the square mile¹. The West Coast division is even more favoured and in many parts the population ranges from 500 to over 1,000 persons per square mile.

These distinctive physical characteristics are reflected in the kinds of dwellings that are to be found in these different districts,

Typical villages and are described by Mr. J. C. Molony in his Census Report on Madras². In the north

the hardy *Khond* lives in a hut made of wood; in the East Coast division the dwellers live in mud huts amid their rice fields, while the inhabitants of the Deccan have to live in villages almost devoid of trees. The Tamil country contains houses of many kinds some whitewashed, some thatched, some tiled, but all alike built amid shady groves. The West Coast division gives a striking proof of the greater affluence of its inhabitants. "The huddled squalor of the eastern villages gives place to the solid comfort and freedom of substantial homesteads scattered over the country side."³

Hindus are largely in the majority in this province and account for 88·7 per cent of the population while Mussalmans

Principal castes comprise only 6·7 per cent⁴. Madras is pre-eminantly an agricultural country. In 1911

70 per cent of the population were supported by agriculture and 15 per cent by industry, while in 1921 no less than 71 per cent were dependent on agriculture and only 13 per

1 Census of India 1921, Vol. XIII, Madras Part I, Report page 21.

2 Census of India 1911, vol. XII, Madras Part I, Report page 6 *et seq.*

3 " " 1911, Vol. XII, Madras Part I, Report, page 8.

4 " " 1921, Vol. XIII, " " page 58.

cent on industry.¹ Consequently not only are the cultivating and field labouring castes in the majority, accounting for approximately 40 per cent of the total population in 1911², but agricultural work is undertaken to a greater or lesser extent by all castes³. Among the cultivating castes the *Vellala*, the *Kapu* and the *Kamma* taken together account for more than 50 per cent: among the labouring castes the most numerous are the *Paraiyan*, the *Palli* and the *Mala* castes⁴. The figures relating to the other castes, though correct within certain limits, are somewhat misleading as many artisan castes and others have forsaken to a certain extent their traditional occupation in favour of agriculture: one reason, among many, for this change of occupation, being that no stigma attaches to agricultural work, whereas a worker in leather is looked down upon by all castes. After the cultivating and labouring castes, traders and pedlars are the most numerous accounting for nearly 3½ million souls in 1911.

The primary occupation is agriculture supporting as workers and dependants more than 30 million out of a total of more than 42 and a half million⁵. All other forms of

Village occupations occupation pale into insignificance in comparison with these numbers. Interesting accounts have been given both in the Census of 1911 and in 1921 of the industrial occupations of the province in one case by Sir Alfred Chatterton⁶ and in the other by Mr. C. W. E. Cotton⁷. The numbers supported by 'selected occupations' are given in a special table.⁸ Among these occupations 'industry' ranks next to agriculture and supports more than 4,800,000 persons. Nearly one quarter of the total industrial population are supported by the textile industry and slightly over one million by the industries connected with dress and toilet. Both the reports cited above make an attempt to ascertain the effect of the competition of machine-made goods with articles made by hand Writing in 1911,

1 Census of India 1921. Vol XIII, Madras Part I, Report page 165.

2 Census of India 1911 Vol. XII Madras Part I, Report page 184.

3 " 1921 Vol. XIII, Madras Part II, Table XXI.

4 " 1911 Vol. XII, Madras Part I, Report page 184.

5 " 1921, Madras, Vol. XIII, Part I, Report, page 167.

6 " 1911, Madras, Vol. XIII, Part I, " 196.

7 " 1921, Madras, Vol. XIII, Part I, " 183.

8 Op. cit, page 212. •

Sir Alfred Chatterton¹ was of opinion that with regard to the textile industry while hand-spinning was practically extinct, the number of handloom weavers has probably remained stationary during the preceding forty years though they undoubtedly have to work harder than formerly owing to the stress of competition. In 1921, however, Mr. Cotton reports a decline in the number of persons supported by handloom weaving from 368,509 in 1911 to 304,000². In fact, with the exception of a few unimportant industries, all industries shew a decline in numbers supported in 1921 as compared with 1911³. Mr. Cotton suggests that the substitution of machine-driven small plants in place of small primitive bullock mills may have tended to displace some workers. He also thinks that "the high price of food grains in parts of the country when the census was taken and general trade depression may have led to a temporary abandonment of many cottage industries in favour of agriculture or emigration."⁴.

Caste Government Caste Government does not present any special features. As in other parts of India the higher castes have no rigid organisation for enforcing their views, but among the lower castes the caste tribunal still carries weight and within certain limits has the power of enforcing its decisions. Mr. Molony points out that the continuance of caste government among the lower classes may be due to the fact that among them there is no ready appeal to the courts established by Government as the language used in those courts is frequently unintelligible to them and consequently "the maintenance of his home-made tribunal becomes a matter of everyday necessity"⁵.

(vi) CENTRAL PROVINCES AND BERAR

The Central Provinces and Berar cover a total area of 130,997 square miles, of which the mean density in 1911 was 122 persons per square mile.⁶ This low average density arises from the fact that there are large tracts of country unsuitable for cultivation, except

1 Census of India 1911 Vol. XII Madras Part I, Report page 208.

2 " 1921 Vol. XIII Madras Part I, " 196.

3 Op. cit. pages 212 and 213.

4 Op. cit. page 189.

5 Census of India 1911, Madras, Vol. XII, Part I, Report page 180.

6 Census of India 1911, Central Provinces and Berar Vol. X Part I, Report pages 5 and 6.

of the most meagre kind. The province falls naturally into four divisions : the Nerbudda valley, which lies to the north and is a fertile wheat district, the Maratha plain which includes Berar and the Nagpur country noted for its cotton ; the plateau in the centre mainly covered with forest and the Wainganga valley and the Chattisgarh plain which lie to the east and where rice is principally grown. It is these two latter divisions which are the most sparsely inhabited and which bring down the general average. Just as in other provinces, so here also these geographical features affect not only the occupations of the inhabitants but also their mode of life. Thus, in the wheat districts in the north a comparatively small labour force is required except at harvest time as the crop needs little attention after it has been sown. During the month of March emigrants come from the hilly tracts to help to reap the crop. Parts of the Plateau division are fertile but the difficulties of cultivation in a hilly and forest covered area have caused this part of the province to be left in the possession of the aborigines. The rice tracts of the Wainganga valley give employment not only in the sowing and reaping of that crop, but also in the construction of irrigation tanks. In this division a considerable demand for labour has also arisen in the manganese mines and for railway and road construction, but even so there is not sufficient local employment for the enormous labouring population which annually overflows into Berar for cotton-picking. The Chattisgarh plain division is almost entirely agricultural, rice as well as wheat being the main crops. Being protected from immigrants by the wild and difficult nature of the country the Chattisgarhi has to a large extent remained unaffected by the social and economic changes that have taken place in other parts. The western portion of the Maratha plain includes the districts of Berar and of Nagpur and Wardha in the Central Provinces. These are the most important cotton-growing districts in the province and contain the wealthiest and most progressive section of the population. The demand for labour has consequently exceeded the supply and large numbers have been drawn from the villages to the towns.

This province is mainly inhabited by Hindus and Animists, no less than four-fifths of the population in 1911 being Hindus.¹

¹ Census of India 1911, Vol. X Central Provinces and Berar, Part I, Report page 64.

Among the castes and tribes the most numerous are the forest and hill tribes forming 23 per cent of the total population in 1911.¹ Among them the *Gonds* are by far the most numerous. These tribes are largely engaged in cultivation and field labour and have not changed their traditional occupation to any great extent. Next in numbers (19 per cent of total population) come the numerous cultivating castes among which the *Kunbis* in the Maratha districts account for nearly half the total number. The *Kurmis* and *Lodhis* are also cultivating castes. Like the *Kunbis* these castes have also not changed their traditional occupation. The weavers, carders, and dyers in 1911 numbered nearly 2 million (12 per cent of the population). Among them the *Mahars* account for more than half the total (60 per cent). Graziers and dairymen are the next most numerous caste. The other castes belong to the usual artisan classes who provide local needs, and amongst them the *Chamars* or leather workers are by far in the majority.

It is possible to gauge the importance of some of the domestic industries in the province by studying the census reports and the

Rural occupations report² of the industrial survey of the province, but unfortunately these only carry us to 1911 as the Census figures for 1921 are not yet available. The 'Industrial Survey' dealt with the industries connected with weaving, pottery, brick and tile-making, tanning and leather working and oil pressing and was carried out in 1908-09 by Sir Ernest Low. With regard to the cotton textile industry Sir Ernest Low comes to the conclusion that between 1891 and 1901 there had been a large decline in the population engaged in this industry.³ This is attributed to the advent of the railways which brought mill-made and foreign made goods into competition with the hand-made articles. The weavers who suffered most were those who made the finer and more expensive cloths. It is not easy to make an exact comparison between 1901 and 1911, but that the industry still held an important place is evident from the Census figures of that date. Thus in the Central Provinces

¹ Census of India 1911, Vol. X Central Provinces and Berar, Part I, Report page 234.

² Report on the Industrial Survey of the Central Provinces and Berar 1908-09 by C. E. Low, K.C.I.E., I.C.S.

³ Op. cit. page 18.

British districts and Berar a population of 390,379 persons were supported by it and it gave full time employment to 133,797 men and 102,586 women¹; and of these only 18,419 men and 8,546 women were employed in factories².

The pottery industry and brick and tile making³ are next examined by Sir Ernest Low and he estimates that though the numbers may have declined, yet there is evidence that both these industries were at the time of the survey in a comparatively flourishing condition. He points out that numerous castes have taken up brick and tile making as it does not require the hereditary skill of the potters' craft.

Tanning and leather work which is the third important industry dealt with, declined in the decade 1891-1901. This is said to be due to the increased demand for raw hides and "particularly to the introduction of the chrome process of tanning for which raw hides are greatly preferred to partially dressed ones⁴." This demand has broken down the prescriptive right of the *chamar* or leather worker to the carcasses of the dead cattle. He has now to pay the usual market rate. Yet another cause is to the greater popularity of factory-made shoes compared with those made locally.

The oil-pressing industry has also suffered from the results of competition. Import of Kerosine are stated to have increased enormously and there has also been a rise in the import of other oils. Sir Ernest Low draws attention to the extensive export of oil seeds from the province and suggests that the oil-pressers should be given assistance if possible by the introduction of improved oil mills.

Thus it is evident that the competition of machine-made goods is being felt even in remote villages in the Central Provinces. Those who spin and weave are naturally the first to be affected, but even blacksmiths and oil-pressers are finding that they are unable to compete and so are abandoning their traditional occupation and taking to agriculture.

1 Census of India 1911 Vol. X Central Provinces and Berar Part II, Table XV, page 214.

2 Op. cit. Table XV E. page 308.

3 Industrial Survey of Central Provinces page 47.

4 Op. cit. page 57.

The Punjab and Assam have alone been omitted from this survey which has dealt with all the other provinces. No useful purpose would be served by describing in detail the village life in Assam as the majority of the workers in the industries and in the tea-plantations are drawn from the provinces that have been described. From an industrial point of view the Punjab at present is not of great importance, though it too has been advancing rapidly of late.

CHAPTER IV

THE DEMAND FOR LABOUR

In England the Industrial Revolution brought about in the course of its development a complete transformation in the life and

The Scope of the Chapter work of the majority of the population.

There arose an industrial class of workers entirely dependent for their livelihood on factory employment whether as ordinary workers or as foremen, superintendents and managers. A great social and economic change was effected which undoubtedly in its course brought severe hardship on those who were either too old or too far away from the centres of industry to adapt themselves to it. In India, on the other hand, this process of change is only gradually taking place. Organized industries are slowly coming into being and agriculture still supports three fourths of the population. The stage of industrial progress reached varies considerably in different parts. In the last Chapter I described in some detail the conditions in the villages in the different provinces and the available sources of labour for the increasing number of organised industries in the country. In the present Chapter I intend to examine the extent of the demand for labour that is being created by these industries and the manner in which this demand is being met in actual practice. The provinces will again be dealt with separately as they are confronted with problems of varying perplexity and their mode of dealing with them is consequently different. They cannot however be regarded as water-tight compartments as the flow of labour over different parts of India is very extensive. Thus, the labour in Bombay mills is largely made up of immigrants, while it is quite usual to find in the jute mills of Calcutta, Telugu weavers from Madras, spinners from Orissa, weavers from the United Provinces and Bihar, carpenters and smiths from the Punjab with only a small proportion of Bengalees

(i) BENGAL

In Bengal the textile and connected industries are of far greater importance than any others. Out of a total labour force,

Principal organised industries employed in 'establishments', consisting of 578,309 males and 178,732 females nearly 46 per cent of the males and 28 per cent of the females are employed in the textile group of industries.¹ Jute presses and mills account for the largest number of employees. These are practically all located in the neighbourhood of Calcutta, mostly along the reaches of the Hughli, within a radius of 25 miles from the city. Next in importance is the tea-industry which gives employment to 15 per cent of the males and to approximately 57 per cent of the total female labour force.² The principal tea-gardens in Bengal are situated in the Himalayas and the country immediately below the mountains in the districts of Jalpaiguri and Darjeeling. The metal industry accounts for approximately 9 per cent and railway workshops for 5·2 per cent of all males employed, but scarcely any women are employed in these industries. In mining, on the other hand, nearly 6 per cent of the total male labour force and 7 per cent of the total female labour force are employed.³ Minor industries comprise brick and tile factories situated in the neighbourhood of Calcutta, oil mills which are principally found in Calcutta, but are also scattered over the province and flour mills which are similarly scattered. Printing is an important industry in Calcutta itself and gives employment to 14,079 males.³

One of the salient features of the industrial organization of Bengal is the extent to which industries and manufactures are concentrated in Calcutta and the districts surrounding it. This region contains the greater proportion of the total industrial undertakings in the province, while the operatives at work in the mills and factories in this area constitute over half of the total number employed in the whole province. Various social and economic consequences, which will be dealt with in the succeeding chapters, arise out of this crowding together of factory employees in comparatively small areas.

The labour supply of Bengal was investigated in 1906 jointly by Mr Foley and Mr. S. H. Fremantle⁴. Many interesting facts

1 Census of India 1921, Bengal, Vol V Table XXII Parts I & II.

2 Census of India 1921 Bengal Vol. V Part II Table XXII.

3 Op. cit. Table XXII page 28.

4 Report on the supply of labour in the United Provinces and in Bengal by S. H. Fremantle.

**The districts
which supply
the labour**

were discovered in the course of the survey, but the enquiry was hampered by the lack of definite statistical data relating to the birthplace of workers. This deficiency has now been supplied. At the Census of 1921 the birthplace of industrial workers was recorded. It is consequently now possible to gauge the extent to which Bengal is dependent on outside labour for her industries¹. The information has been tabulated separately for skilled and unskilled workers. This is fortunate, as Bengal draws to a very different extent on the provinces for these two classes of labour. The following table prepared from the Census statistics gives the required information at a glance (see next page). From this table it is evident that about 39 per cent of the skilled labour employed is local and that the greater part of this labour belongs to the districts where the industries are located. Bengal also draws on the United Provinces and North and South Bihar and to a lesser extent on Orissa for her skilled labour force. Of the unskilled labour, a smaller proportion, approximately 30 per cent, is local; the remainder is drawn from outside. The largest proportion of these come from the Chota Nagpur plateau; North and South Bihar furnish 17 per cent while the United Provinces, which supply almost 20 per cent of the skilled labour, only furnish 11·5 per cent in this case. The proportion of skilled and unskilled labour that comes from Madras is equal.

The causes which have contributed to the comparative scarcity of industrial labour in Bengal are complex. The permanent land

**Causes of the
Scarcity of local
labour**

settlement in Bengal which has brought about much subinfeudation has, to a certain extent, released a number of persons from agriculture for employment in industry but they are not very eager to undertake industrial work. Owing to the system of land tenure now in force a large section of the land owners have permanently farmed out their proprietary rights. The farmers have in their turn sublet their own rights for fixed sums and now, in many cases, there is a long chain of intermediate tenure holders between the actual occupant of the land and the landholder who pays revenue

¹ Census of India 1921 Bengal Industrial Statistics Table XXII Parts IV and V.

Table showing Birth Place of Skilled and Unskilled workers employed in Bengal Province*

Workers	Born in Province						Born in other Provinces				Born outside India		
	Total	Enumerated Districts	Adjoining Districts	Other Districts	N. Bihar	S. Bihar	Chota Nagpur	Orissa	United Provinces	Madras	Other parts of India	Not in India	
	Numbers	181,974	51,151	13,429	6,560	27,120	24,779	2,427	12,524	35,991	1,180	3,226	588
Skilled	Percentage	..	28·1	7·3	3·6	14·9	13·6	1·3	6·9	19·8	2·3	1·8	·3
Unskilled	Percentage	..	588,448	135,669	21,725	16,945	36,099	63,977	122,942	51,766	68,154	13,294	57,535
	Percentage	..	23·1	3·7	2·9	6·1	10·9	20·8	8·8	11·5	2·3	9·8	·1

* Census of India 1921, Bengal, Vol. V, Part II, Industrial Statistics Table XXXII, Parts IV and V

to the state. Originally the farmers and sub-farmers obtained a fair income from their rights. But prices have been rising almost continuously and the numbers who now share the proceeds have also increased. Consequently the present value of the actual share of an individual has in many cases become a trivial amount. This class of persons has therefore been obliged to seek other employment. Unfortunately the education available for these classes in Bengal has been almost entirely of a literary type fitting them mainly for clerical work in Government and commercial establishments or for the learned professions. This fact combined with the natural reluctance of the higher castes (to which these classes generally belong) for manual work has deterred them from industrial employment, although now at any rate the earnings of a factory labourer compare favourably with the income of a clerk. The deficiencies in proper educational facilities are being gradually rectified and there is a growing tendency on the part of the middle classes, or *bhadralog* as they are called in Bengal, to take up industrial work such as that of fitters and mechanics in the factories and engineering workshops. Their industry, intelligence and temperate habits are likely to stand them in good stead in these callings, if the present tendency is properly fostered and encouraged.

Coming to the lower strata of Bengal society it has to be noted that Bengal is a fertile province. There is a large demand for agricultural labour and wages are comparatively high. The peasant class is more affluent than in other parts of India. In recent decades the western and central districts of Bengal have suffered severely from the ravages of malaria. This has on the one hand prevented congestion of the population and on the other it has so debilitated the physique of the masses that they are not capable of strenuous work in factories and mines. In the eastern districts the majority of the rural population are Mussalman by religion. The joint-family system is not as strong among Mussalmans or among the Bengali Hindus as it is among the Hindus of the rest of India and consequently it is not possible for a man to take up factory work, leaving the other members of the family to carry on agriculture in the ancestral holding. A certain number of agricultural workers in Bengal do, however, seek employment in mills and factories for long or short spells. It is only the less intelligent who enter as unskilled workers. As has

been mentioned above the more intelligent Bengalis are now endeavouring to get the necessary training for skilled operations. They are, for instance, largely in demand in the various engineering works that are now springing up in Bengal and the adjacent province of Bihar.

Thus while the factories and jute mills in Bengal have now to recruit the bulk of their labour from other provinces, this was not at first the case. Local labour was available. This labour gradually drifted to more lucrative employment and with the extensive introduction of the very profitable jute crop was absorbed in agriculture. Where conditions are good and suitable housing is provided, Bengalee labour has not been displaced I found a striking example of this in a jute mill to the south of Calcutta. The design and ventilation of this factory are in accordance with modern ideas. Up-to-date machinery makes it possible for the workers to earn good wages and in addition the housing is exceptionally good. The manager told me that the labour turn-over was small and that the bulk of the men were local. The example of this mill tends to show that the Bengalee does not object to factory work *per se*, but rather to the unsatisfactory concomitants. Where these are fair, he is content to work. The immigrant labour, on the other hand, has not generally speaking as high a standard of living. I have found them contentedly living in crowded busties (settlements). Just as the Irish emigrant in the early days of the Industrial Revolution in England, was content to accept lower wages and worse conditions than English agricultural labour, the immigrant to Bengal from outside the province does the same. As conditions improve, local labour will in all probability again in its turn displace to a certain extent imported labour. There is not, however, a great deal of surplus labour in Bengal. The eastern districts with their large acreage devoted to jute are very prosperous. Local labour from these parts is not easily attracted to the factories and mills round Calcutta. On the other hand a large number of immigrants find employment in the agriculture of these districts.

It has been contended, that industrial development in Bengal will not add very much to the material prosperity of the Bengal labourer. For the reasons stated above I think that this view is fallacious. There is also little doubt in my mind that industry in

Bengal will be very much benefited by the increasing number of Bengalees who will seek industrial occupation. Not only will they bring intelligence to the work, but their higher standard of living will induce them to work hard to earn wages sufficient to maintain that standard. The economic truth that low-paid labour is not necessarily cheap will gradually make itself felt. Recognition of this truth will induce factory managers to recruit their labour from the most intelligent and industrious sections of the population.

As jute, tea and coal are the industries in Bengal which give employment to the largest numbers, the castes which take up work

Proportion of different castes employed in coal-mines, tea-gardens and jute mills in them will now be examined. Here again the data collected at the Census of 1921 are invaluable. The tabular statement on the next page based on these data¹ gives the proportions of the principal castes employed as skilled and unskilled workers.

These statistics bring out clearly the fact that labour for the coal mines is largely obtained from backward tribes such as Santals and Bauris Both of these are cultivating tribes, living on the borders of Bengal and Bihar and Orissa They furnish the mines with strong muscular men and women who are willing to do the rough and heavy work, the men doing the mining while the women carry the coal in baskets. The blasting work in the mines is however apparently mainly performed by men who come from the Central Provinces and who are consequently able to earn higher wages. The comparatively high wages obtainable act as an inducement for them to come.

The *Santals* are an agricultural people : they leave their fields very unwillingly and as a rule take only part-time work in mines. In a recent enquiry into output in the coal-fields in the Burdwan division of Bengal, it was found that in many mines the average number of days worked in the month by a labourer was 12. This was mainly due to the fact that the men returned to their homes in the vicinity of the mines to do their own agricultural work.

¹ Census of India 1921, Bengal, Vol V Table XXII Appendix Parts IV and V.

Caste or Race of Industrial Workers in the Province of Bengal*

Caste, Tribe or Race	COAL MINES				JUTE MILLS				TEA GARDENS			
	Skilled		Unskilled		Skilled		Unskilled		Skilled		Unskilled	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Muhammadian	324	10·2	1084	2·6	46917	2·9	33179	1·7	213	2·9	4465	2·07
Brahman	78	...	391	...	2154	1·1	4614	...	1013	...	1013	•5
Chasi Kurbarta	...	...	...	...	4022	...	2219	1·4	64	...	64	...
Jali Kurbarta	1	...	66	...	3489	...	3978	2·6	16	...	16	...
Pod	...	...	4	...	1311	1·1	1094	•7	...	...	...	...
Chamar & Muchi	117	3·7	1110	2·9	6941	5·6	21883	14·1	411	•2	411	•2
Teli	51	1·6	190	•5	3677	2·9	6143	3·9	345	•2	345	•2
Dosadh	28	•9	381	1·1	1528	1·2	1279	•8	211	•1	211	•1
Goalia	109	3·4	753	2·2	2739	2·2	4464	2·9	2632	1·2	2632	1·2
Sadgop	8	...	16	...	674	•5	445	•3	...	...	...	...
Napit	17	5	87	...	957	•8	1377	•9	27	...	27	...
Kabar	28	9	232	•6	1822	1·5	3554	2·3	390	•2	390	•2
Jugi	1	...	16	...	758	6	470	•3	950	•4	950	•4
Tanti	7	...	78	...	4811	8·9	6312	4·4	382	•2	382	•2
Santal	456	14·3	14243	38·3	22	...	268	•2	9422	4·4	9422	4·4
Orang	...	...	51	...	1	...	63	...	57342	26·6	57342	26·6
Munda	4	...	439	1·2	178	•1	467	•3	20149	9·3	20149	9·3
Bagdi	36	1·1	197	•5	3546	2·8	449	2·8	37	...	37	...
Bauri	755	23·8	7906	21·3	70	...	329	•2	433	•2	433	•2
Unspecified	1156	36·4	9953	26·8	38604	31·1	58586	37·7	116989	54·3	116989	54·3
Total	3175		37168		124221		155653		215611		215611	

* Census of India 1921 Bengal Vol. V Part II Industrial Statistics Appendix to Table XXII Parts IV and V.

Besides the aboriginal tribes mentioned above a comparatively large proportion of Muhammadans are to be found among the skilled workers ; the remaining workers come from comparatively low castes such as Chamar and Muchi.

In the tea-gardens the Oraons predominate very largely but as the castes of over 50 per cent. of the total employees have been

Workers in tea-gardens omitted from the Census Table relating to workers in the tea-gardens it is not possible to calculate exactly the proportion of the

different castes represented. In the 1911 Census more detailed information was given. According to the data compiled at that date¹ it is evident that the work on tea-gardens appeals to a very large number of castes as no less than 91 were enumerated, the chief among them being Oraons, Mundas, Jimdar or Khambu, Santal, Murmi, Mangar and Kharia. The nature of the labour force varies in the different gardens. In Jalpaiguri for instance, the majority of the workers were found to be immigrants, more than half coming from Chota Nagpur.² In the Darjeeling tea-gardens on the other hand almost half the labour was local, the bulk of the remainder coming from Nepal. Special returns of the languages spoken by the tea-garden population of Jalpaiguri show that no less than 48 languages are spoken and that Bengali itself is comparatively unimportant.

The data collected at the 1921 Census relating to the castes of employees in jute mills are not very complete. Only 21 castes

Workers in Jute are given³ while at the Census of 1911 no less than 71 castes were enumerated.⁴ According to the information collected at both

Censuses Muhammadans constitute a substantial proportion of the workers. Further while the 1911 data shew that no less than 9.5 per cent. of the total labour force were composed of *Jolahas* (Muhammadan weavers), the figures for this caste are not given separately in 1921. The Hindu weavers known as *Tanti* and *Tatwa* contributed 3.9 and 4.4 per cent. of the skilled and un-

1 Census of India, 1911, Vol. V, Bengal, Part II, Table page 382.

2 Census of India, 1911, Vol. V, Bengal, Part I Report page 538.

3 Census of India, 1921, Bengal Industrial Statistics, Table XXII, Parts IV and V.

4 Census of India, 1911, Vol. V, Bengal, Part II, Tables page 383.

skilled labour force respectively in 1921 and 3.5 of the total labour force in 1911. The Chamar and Muchi castes are also largely represented, constituting no less than 14 per cent of the unskilled workers in 1921 and over 13 per cent of the total labour force in 1911. The relative proportion of the other castes may be observed by glancing at the table on page 76. The fact that work in the jute mills appeals to very different castes from those attracted to the coal mines and tea-gardens may also be observed, for while aboriginal tribes are found largely represented in both these latter cases, comparatively very small numbers of such people seek work in Jute mills.

(ii) BOMBAY

The demand for labour in the Bombay Presidency is second only to that of Bengal. The textile and connected industries are

Principal industries the most important, what jute is to Bengal, cotton is to Bombay. Out of a grand total of 322,095 men and 76,523 females employed

in "industrial establishments," 67 per cent of the men and 85 per cent of the women are employed in the textile and connected industries¹. More than half of this total number are employed in Bombay city itself; for the rest this industry is fairly equally distributed over the Northern, Central and Southern divisions. The two most important towns in these divisions for spinning and weaving are Ahmedabad and Sholapur while cotton gins and presses are found in practically all districts, but more especially in East Kandesh². Next in importance come the metal industries and the large railway workshops of which the chief are situated in Dharwar, Bombay and at Karachi and Sukkur in Sind. There are also many engineering works, motor works and iron and brass foundries in Bombay giving employment to large numbers as well as chemical factories, electric works and printing presses. The figures quoted above refer only to workers in 'establishments'³ and

¹ Census of India 1921 Vol. VIII Bombay Presidency Part II Table XXII Part 1, page 364.

² Op. cit. Table XXII Part II page 383 *et seq.*

³ For Census purposes an *establishment* is defined as a place where 10 or more persons are employed on separate remuneration in manufacture whether power is used or not, see Bombay Census Report 1921, Volume VIII, Part I, page 209.

do not include home-workers. Though the definition of an 'establishment' is very wide the large number of industries that are carried on at home and in family groups cause a fair proportion of workers to fall outside its scope.

The province of Bombay cannot supply all the labour needed for the various enterprises that have been enumerated above

Sources of labour-supply although the population at the Census in 1921 numbered no less than 26,701,148¹ persons. There has, in fact, been a steady stream of migration into the province. At the 1921 Census there were more than 900,000 immigrants². There are two main streams of immigrants, one from Baroda State, Rajputana and the United Provinces and the other from Hyderabad and Madras. But men from practically all parts of India are found in this province.

The tabular statement on the next page shews that so far as the factory population is concerned the province of Bombay is much more self-dependent than Bengal. Though about the same proportion of her workers belong to the district of enumeration as in Bengal, a very much larger proportion come from other districts of the province. Over 80 per cent of the factory population of skilled as well as unskilled workers belong to the province. The remainder come largely from Baroda territory which is so closely interlaced with the province that migration is easy. Others come from contiguous provinces such as Hyderabad and the Central Provinces. The United Provinces, though separate figures are not available, contribute an appreciable number.

The large industrial centres like Bombay, Karachi, Ahmedabad and Sholapur naturally attract these streams of immigrants: the great majority of migrants from Baroda go to the neighbouring city of Ahmedabad while the bulk of the migrants from Hyderabad go to Sholapur, which is nearer than Bombay or Ahmedabad. Bombay city draws largely from the United Provinces and from the French and Portuguese settlements.

¹ Census of India 1921, Vol. VIII. Bombay Presidency, Part II, Table XVII, page 212.

² Census of India 1921 Vol. VIII Bombay Presidency Part I Report page 203.

*Table showing Birth place of Skilled and Unskilled workers employed in the Province of Bombay**

Workers	Born in Province			Born in other Provinces				Born outside India
	Total	District of Enumeration	Contiguous Districts	Baroda	Mysore	Hyderabad	C. P. and Berar	Rest of India
	Numbers	37,451	17,432	73,245	5,210	204	3,467	2,012
Skilled	154,871	37,451	11.2	47.3	3.4	.1	2.2	1.3
Percentage	...	24.2						9.9
Un-skilled	177,615	46,969	18,270	82,932	5,578	82	2,797	2,155
Percentage	...	26.4	10.3	46.7	3.1	...	1.6	1.2
								10.5
								...

* Census of India 1921, Vol. VIII, Bombay Presidency Part II, Table XXXII, Parts IV and V, pages 404 and 426

The streams of migration within the province itself may be studied in the tables¹ included in the Bombay Census Returns which give not only the number of immigrants to important industrial centres, but also the districts from which they come and the castes to which they belong. In the case of Bombay city, the largest number of immigrants come from Ratnagiri and consist mainly of the labouring and cultivating classes. The main crop in Ratnagiri is rice. The holdings are small and the land has to lie fallow for long periods. Large numbers are therefore free to migrate. Gujarat also furnishes many employees. Owing to the rather precarious rainfall agriculture in that part suffers from periods of depression and the inhabitants are consequently compelled to seek other modes of earning their livelihood. The large numbers of *Mahars* who are found in the factories come from the Deccan uplands and the parts near Poona. In those districts there is no oppressive system of landlordism compelling the cultivators to take up factory-life. The tenants known as ryots hold their lands directly from Government. The land is, however, not very fertile except where irrigation has been introduced. From Cutch come mainly traders known as *Bhatias*, *Khojas* and *Vanis*. They came to Bombay first in the great trade boom of the sixties in the 19th century.

The table on the next page, abstracted from the figures made available at the last Census, gives the percentages among skilled and unskilled workers of the main communities by religion and caste.² It is evident that among both classes of workers the cultivating and labouring castes preponderate. It is also interesting to note that these castes are almost equally divided between the skilled and unskilled occupations. This shews that though they have had no artisan training prior to engagement they are clearly capable of being taught skilled work.

Turning next to the question of the labour supply of the

¹ Census of India 1921 Vol IX Cities of Bombay Presidency Part II Bombay City Table VI Part II page XX *et seq*

Op. Cit. Ahmedabad page XCIX.

" Karachi " CXXII.

² Census of India 1921 Vol. VIII Bombay Presidency Part II, Table XXII, Parts IV and V.

Table showing Religions and Castes of Industrial Workers in the Province of Bombay*

Workers	Total	Mussal-mans and Sikhs	Christians	Parsis	Brahmans	Artisan castes	Marathas Kumbis and other cultivat-ing castes	Kolis and other labouring castes	Foreign-ers
Skilled	Total . . .	54,871	20,995	3,733	1,064	5,025	11,269	63,503	48,644
	{ Percentage . . .		13·6	2·4	·7	3·2	7·3	·	638 ·4
Unskilled	Total . . .	177,615	17,790	1,490	191	5,887	10,944	62,287	78,877
	{ Percentage . . .		10·01	·8	·1	3·3	6·1	35·0	44·4

* Census of India 1921, Vol VIII Bombay Presidency Part II—Table XXXII, Parts IV and V, pages 404 and 426.

principal cities and commencing with Bombay one finds that though the total population of that city is more than one million, less than 200,000 were actually born in the city itself¹. Approximately half of the total population have come from other districts in the province. The immigrants from outside the Province, as has already been stated, come principally from the United Provinces and the French and Portuguese Settlements, but a fair proportion come from Hyderabad and Rajputana respectively. A substantial contingent also comes from Madras.

The proportion between the sexes in Bombay is as 66 to 34. This is undoubtedly due to the fact that men come to Bombay principally to seek factory or other work. They have no intention of becoming permanent settlers and so do not bring their wives and families with them. This is still further borne out by an examination of the proportion between men and women between the ages of 15 and 40 coming from the various districts in the province and from other parts of India². Even in the case of those who come from adjacent districts such as Ratnagiri the proportion of men to women between these ages is about 67 to 33; in the case of people from distant provinces like the United Provinces the proportion is as 89 to 11 while from Madras it is as 79 to 21.

It is clear that the labour supply of Bombay is in a state of grave instability. It is extremely heterogeneous, being composed of men and women from all parts of India; the proportion of Bombay-born persons to the total is very small and those who come from outside come mainly without their wives and families and so do not become permanent residents. Undoubtedly among the main causes preventing men from becoming permanent settlers are the housing conditions in Bombay.

In Ahmedabad³ conditions are very different. Approximately

¹ Census of India 1921 Vol. IX Cities of the Bombay Presidency, Part II, Bombay City Table VI Part I, page XX.

² Op. cit. Bombay City Table VI, Part II, page XXXI *et seq.*

³ Op. cit. Ahmedabad City Table VI, Part I, page XCVI.

60 per cent of the total population were actually born in Ahmedabad, about 23 per cent are immigrants from (2) of Ahmedabad other parts of India, the remainder coming from adjacent districts and from Bombay States and Agencies. Of the extra-province immigrants more than half come from Baroda and a little less than one third from Rajputana. Moreover the excess of men over women is comparatively small, nearly 57 per cent of the total population being men. Ahmedabad can consequently count on a fairly stable labour supply. It is not composed of many heterogeneous elements, the majority are persons who have been born in Ahmedabad itself and even immigrants from distant provinces apparently bring their families with them to a large extent.

In Sholapur¹ there are even more grounds for regarding the labour force as permanent. Nearly 64 per cent of the total population were actually born in Sholapur itself (3) of Sholapur and only 27 per cent come from outside the province. Of these latter the bulk come from the neighbouring state of Hyderabad.

(iii) BIHAR AND ORISSA

There is an increasing demand for labour in this province. The vast iron and steel works with their subsidiary industries at Principal Jamshedpur (Singhbhum) give employment organised to over 20,000 males and 5,000 females.² industries There are also engineering works at Kumar-dubi with fireclay and silica works attached. The East Indian Railway works at Jamalpur (Monghyr) employ over 11,500 men. There are two large cigarette factories and many small oil, rice and flour mills. Mining is, however, the most important industry in Bihar as the province is singularly rich in mineral products. Not only are there large deposits of coal, but iron-ore, copper, mica, and manganese are found and worked. The coal-fields which give employment to more than 73,000 males and 30,000

¹ Census of India 1921, Vol. IX, Cities of Bombay Presidency Part II, City Tables, Sholapur, Table VI page CLX.

² Figures quoted in this section are in all cases taken from Census of India 1921 Bihar and Orissa Industrial Statistics Table XXII, Part II.

females are chiefly situated in the Hazaribagh and Manbhum districts. The Mica mines employ the next largest number, about 9,000 men and 4,000 women. These mines are chiefly situated in Hazaribagh. Iron-ore is found chiefly in Singhbhum and Mayurbhanj. About 5,000 persons are employed in iron-mines. Copper also is found in Singhbhum and the numbers employed are approximately three thousand. The importance of the mining industry is seen from the fact that out of the total number industrially employed (167,203 males and 52,771 females) more than half the males and nearly four-fifths of the females are engaged in mining.¹

These industrial needs are, to a great extent, supplied by provincial labour. The surplus population of the province also

Local supply of Labour

migrates largely to other provinces seeking work in tea-gardens and in mills and factories.

The extent to which the two important local industries namely coal-mining and iron and steel draw on local labour and on labour from other provinces may be ascertained from the data collected at the Census of 1921, from which the tabular statement on page 86 has been prepared.

Thus it is evident that coal mining in Bihar is carried on mainly by local labour in the case of skilled as well as unskilled workers. The remainder come mainly from the Central Provinces; comparatively few come from Bengal and the numbers from the other provinces are all small. The position is slightly different with regard to the iron and steel works. Less than half of the skilled labour is drawn from local sources, 14 per cent comes from the United Provinces and approximately 10 per cent from Bengal. As is to be expected a larger proportion (63.5 per cent) of unskilled labour is provided locally, while no less than 27.8 per cent comes from the Central Provinces.

On the whole, however, the province of Bihar and Orissa supplies more labour to other provinces than she draws from outside

Migration from the Province and its causes

Unlike the Bengali who is not willing to leave his home even for work in his own province the inhabitants of Bihar go far afield. One cause of the difference is undoubtedly the greater affluence of the population in Bengal owing

¹ Census of India 1921, Bihar and Orissa Industrial Statistics Table XXII part II.

Table Showing Birthplace of Skilled and Unskilled Workers in Bihar and Orissa^a

Industry	Workers	Total Males	Numbers employed										Outside India States and Provinces and Bombay	
			IN BIHAR AND ORISSA		BENGAL		UNITED PROVINCES,		CENTRAL PROVINCES		Other districts			
			Districts of enumeration	Other districts	Districts O to B and O and O and O	Other districts	Districts to B and O	Other districts to B and O	Districts to B and O	Other districts to B and O	Districts to B and O	MADRAS		
Skilled ..	33959	19132 | 9086 | 6277	692	346	236	745	402	1597	25	* 140	189	77	16	
Percentage ...	"	88 5												
Unskilled ..,	60714	28191 | 11720 | 13358	880	149	285	771	1729	2831	17	339	165	249	20	
Percentage ...	"	87 7												
Skilled ...	9229	1184 | 271 | 2653	164 | 786	164 | 1158	439	281	631	427	684	244	163			
Percentage ...	"	44 6	10 2	14 2										
Unskilled ..	14594	6870 | 1105 | 1299	123	55	39	201	3044 | 1020	414	29	263	131	1		
Percentage ...	"	63 5							27 8					

* Census of India 1921 Vol. VIII Bihar and Orissa Table XXII Parts IV and V.

to its greater fertility. At the time of the Census of 1911 Bengal contained 476,000 persons from the Chota-Nagpur plateau and Assam contained over a quarter of a million.¹ The causes of this migration are said to be three; the rapidity with which the aboriginal inhabitants are multiplying, the uneconomic system of cultivation they pursue and their thrifless² habits. Large numbers also migrate from Bihar proper to seek work in mills and factories, but the causes of this migration are different from those affecting the aboriginal residents of Chota Nagpur. The districts of Bihar proper are very congested and though the population is not increasing rapidly the agricultural holdings are smaller and are incapable of supporting the population. There is in addition a very large class of landless labourers, amounting in 1911 to over one-fifth of the total population.² The existence of this class of workers coupled with these agricultural conditions compel the people to migrate. They work in the jute-mills of Calcutta; they go to the tea-gardens in Bengal and Assam; they engage in all kinds of work in Burma; they migrate even outside India and go to Fiji, British Guiana and Mauritius.

The cultivating castes, the forest and hill tribes and the artisan castes all seek industrial employment, but different forms of employment attract different castes. Thus, although no less than 20 castes were enumerated as employed in the coal-mines, the majority were, *Musalmans, Santals, Bauris, Chamars, Bhuiyas, Kurmis and Goalas*³. In the iron and steel works on the other hand primitive tribes such as Santals are found in far fewer numbers and the artisan castes have more representatives than the cultivating castes.

(iv) UNITED PROVINCES

The United Provinces, though very densely populated, do not support a large industrial population. There are in fact only

Principal organised industries	82,798 males and 6,443 females employed in industrial establishments containing 10 persons or more. The textile and connected
---	---

¹ Census of India 1911 Vol. V, Bengal, Bihar and Orissa Part I, Report page 171.

² Census of India 1911 Vol. V, Bengal, Bihar and Orissa Part I, Report page 172.

³ Census of India 1921 Vol. VII Bihar and Orissa Part II Table XXII, Parts IV and V.

industries employ approximately one quarter of this total. The next most important industries are metal and food, employing in each case over 11,000 persons.¹ The remaining groups of industries each give employment to about half this number of people. They consist of railway workshops, printing presses, oil mills, and glass and earthen-ware factories.

The chief industrial town in the United Provinces is Cawnpore. The industrial eminence of Cawnpore arose less than sixty years ago. Originally the emporium of the raw cotton grown in the Ganges-Jumna doab and in the districts in Bundelkhand and Central India before it was sent down by river to Calcutta, the first cotton mill in North India was established here and Government also started a tannery and leather factory for army service. Round this nucleus has rapidly grown a modern industrial town of great importance and possibilities. It has exceptionally good railway facilities. The principal industry in the town is the textile, but there are also tanneries and leather factories, engineering works, brick factories, oil, flour and rice mills. There are also large railway workshops. In short all the different industries of the United Provinces are to be found to a greater or less extent in Cawnpore itself. Cotton gins and presses are scattered throughout the Province and during the season, between November and March, give employment to more than 5,000 persons. These gins are situated principally in Agra, Etawah, Lucknow and Cawnpore which form convenient centres for the collection of the cotton crop.² Machinery and engineering (including railway) workshops are found in Lucknow, Cawnpore, Bareilly, Saharanpur, Allahabad and Benares. There are similar shops of less importance and employing small numbers in other parts of the province. Brass, tin and copper works are found in Aligarh, Mirzapur, and Moradabad. Food industries which comprise flour and rice mills, sugar factories, breweries, opium and tobacco factories are scattered throughout the province. There is an important opium factory belonging to Government and situated at Ghazipur which employs

1 Census of India 1921 Vol. XVI United Provinces Part II Table XXII Part I page 416 *et seq.*

2 Census of India 1921 Vol. XVI United Provinces Part II Table XXII Part II, page 426.

1,000 men and 64 women.¹ In addition to these factories a growing demand for labour is manifest in connection with the utilization of forest products such as timber, rosin and turpentine. A large factory population is growing up round Bareilly to meet this demand.

On the whole, however, there is not a very great demand for factory-labour in this province. Consequently a very large

Migration from the Province and its causes proportion of the labourers and cultivators who seek work outside their own villages have to migrate beyond the limits of the

Province. We have already seen evidence of this in dealing with Bengal, Bihar and Bombay. This exodus from the villages is brought about principally by the severe congestion in many parts.

The mean density of the population in the province in 1911 was 427 persons to the square mile which is second only to Bengal.

This average density is however exceeded very considerably in many areas of the province, particularly towards the east. In addition the conditions of agricultural tenure force many to migrate.

These conditions are different in the two main political divisions of the province, viz., Agra and Oudh, and will be dealt with in turn. In Agra there are two kinds of tenants, 'tenants-at-will' and 'occupancy tenants'.

Ordinarily a man becomes an occupancy tenant if he has held the same plot of land for 12 years. Unlike the tenant-at-will his rent cannot be increased or diminished except in proportion to the rise or fall in the value of his crop.

A tenant-at-will on the other hand often finds himself forced out of his tenure by the competition of others desirous of obtaining his holding. He then becomes either an agricultural wage-earner ✓

or seeks employment in a factory.

The agricultural conditions that obtain in Bihar and compel many agriculturists to seek other occupation obtain in Oudh province and to an even greater extent. In Oudh there are big landlords and until recently there were practically no occupancy tenants. Ordinarily a man held his land for 7 years. At the end of this period the rent might be increased at the rate of one anna in the rupee. This was only a nominal increase as in addition the landlord could exact a large premium from the tenant before

¹ Census of India 1921, Vol. XVI United Provinces, Part II Table XXII, Part I.

he would renew the lease and the tenant was not in a strong enough position to resist. In the eastern portions of Oudh the population is dense and the holdings small. The land is very fertile though subject to drought. The climate is good and the population on the whole is strong and healthy. The density of the population and the smallness of the holdings make it difficult for a sufficient livelihood to be earned by agriculture. Large numbers are therefore compelled to emigrate from the country to the towns and also beyond the confines of the province into such places as the Jute mills of Calcutta.

Not only are the various castes employed in agriculture affected, but the others who supply the needs of this agricultural population must also leave their villages when money becomes scarce. Thus hand loom weavers, who are mainly Mahomedans, are found seeking employment in the cotton mills in Cawnpore and Agra. *Chamars* find work in leather factories and tanneries. *Lunias* or earthworkers become available for large irrigation, railway and building projects.

Unlike Bengal and Bihar and Orissa, the United Provinces are not dependent on outside provinces for their industrial labour. Only a few Punjabi carpenters and Bengali Clerks seek employment in the United Provinces, the rest of the labour employed being supplied from within the province itself.¹

The principal castes seeking employment in factories are among the Hindus, the *Chamars* whose main occupation is the curing of skins and shoe-making ; the *Koris* who form a sub-division of the *chamar* caste but whose principal occupation is weaving ; the *Ahirs* who belong to the cow-herd caste ; the *Barhais* who are carpenters and perform all the menial mending tasks in the village ; the *Kachhis* are the market-gardening and opium producing caste. The *Pasis*, the *Lodhars* and the *Kurmis* are all agriculturists. The *Kahars* belong to a fishing tribe and are skilled in making baskets, while the *Lohars* are the village blacksmiths. The *Musalmans* are also to be found, principally in the textile industry.²

¹ Census of India 1921 Vol XVI United Provinces Part II Table XXII, Parts IV and V pages 434 and 436.

² Census of India 1921 Vol XVI United Provinces Part II Table XXII, Parts IV and V.

(v) MADRAS

Madras cannot lay claim to being an important industrial province. The entire population at the Census of 1921 was **Causes of retarded industrial development** 42,794,155¹ and of these only 4,812,771 were supported by industrial occupations while 31,026,751 were supported by agriculture. Madras is prevented from becoming important industrially because of its deficiency in coal. The high cost of power, owing to the great distance that it has to be conveyed, makes factory industries comparatively unprofitable. Unless the large sources of water-power in the province are harnessed and utilised Madras will continue to export her raw materials instead of working them up locally.

The total number of persons employed in 1921 in industrial establishments (of ten or more persons) consisted of 136,270 males and 41,269 females.² The chief industries which are carried on in 'establishments' are the textile and connected industries which give employment to 33,871 males and 13,750 females.³ The growing of special products such as tea, coffee and rubber absorb 22,748 males and 12,826 females. Metal industries account for 25,656 men and 124 women. Food industries come next with 16,885 men and 9,060 females. There are, of course, other factory industries in Madras, but they are of much less importance and only comparatively small numbers are employed.

The textile and connected industries are mainly carried on in the south of the province. The mills for the ginning, cleaning and pressing of cotton are found chiefly at Bellary, Coimbatore and Ramnad, while the spinning and weaving factories are situated mainly in Madras itself. There are also cotton spinning and weaving mills at Coimbatore, Madura, Tinnevelly and Malabar but on an average the total number of operatives at work in each of these places is approximately less than 3,000, while Madras itself gives employment to nearly four times that number⁴

¹ Census of India 1921, Vol. XIII Madras, Part I Report Page 212.

² Census of India 1921 Vol. XIII Madras Part II Table XXII Part I. page 262.

³ Census of India 1921 Vol. XIII Madras Part II Table XXII Part I. page 262 *et seq.*

⁴ Op. Cit. Table XXII Part II page 291.

The tea and coffee plantations and factories are found mainly in the Nilgiris, Malabar and Coimbatore.¹ Work on such estates is very similar to agricultural work. They have been included in the industrial statistics because such places have been brought within the purview of the Factories Act recently. Food industries which include flour and rice mills and sugar factories are scattered over the province but comparatively large numbers are employed in Kistna and Tanjore and South Arcot². Fish curing yards are to be found chiefly on the West Coast of Malabar.

Unlike Bombay, Madras is able to supply its own labour force. Out of the total numbers employed industrially a negligible fraction come from other provinces³. The

Local supply of Labour bulk of the people find work in their own home districts

While Madras only draws very slightly on other provinces for her labour force no less than 1,731,000 Madrasis were enumerated

Migration from the Province. in 1921 in other parts of India or in countries beyond India.⁴ This is due to the fact that though the land is fertile the holdings

are small and the population large. The joint family system frees certain members from their home-duties for purposes of adding to the family income. The large number of landless agricultural labourers form a mobile labour force with a low standard of living.

It competes on easy terms with local labour outside the province. The most important stream of migration from Madras is to Ceylon, which depends largely on South Indian labour for its tea estates and other industries. No less than 447,334 Madrasis were enumerated in Ceylon.⁵ Burma ranks next, the number of emigrants being 270,993. Those who migrate to Burma do not as a rule take their wives and families with them as is shown by the fact that on an average only 208 females migrate for every 1,000 males. Planters' estates in Mysore, Travancore and Coorg draw very large numbers. There is no great disparity between the

1 Census of India 1921 Vol. XIII Madras Part II Table XXII Part II page 288.

2 Op. Cit. Table XXII Part II page 298 *et seq.*

3 Census of India 1921 Vol. XIII Madras Part II, Industrial Statistics Table XXII, Parts IV and V pages 314 and 324.

4 Census of India 1921 Vol. XIII Madras Part I, Report page 47.

5 Op. cit. page 48.

THE DEMAND FOR LABOUR

*Table showing Religion or Race of Industrial Workers in the Province of Madras**

Workers	Total	Religion or Race									
		Europeans and Anglo-Indians		Indian Christians		Mussalmans		Adi Dravida Panchama		Vanniyar	
Skilled	Total	45,209	1,280	5,945	3,054	5,272	7,076	5,311	1,400	3,846	
Skilled	Percentage	..	..	2.8	15.1	6.8	11.7	15.6	11.8	3.1	8.5
Unskilled	Total	120,996	337	8,774	9,390	30,152	14,094	4,940	4,623	3,706	3,009
Unskilled	Percentage	..	..	.3	7.3	7.3	24.9	11.6	4.0	3.7	3.

* Census of India, 1921, Vol. XIII, Madras, Part II, Table XXII, Parts IV and V, pages 314 and 324.

sexes as women can find work as easily as men except in Coorg, where only 347 women migrate with every 1,000 men. The rubber estates in the Straits Settlements and the Federated Malay States also attract large numbers. It is calculated that on the average 90,000 sail every year for these settlements, and that out of this total 11 out of every 12 are adults and 4 out of every 5 adults are men.¹ They evidently do not go with any determination of settling. As a rule they stay about $2\frac{1}{2}$ years and frequently return for a second or third time. The tea-gardens in Assam account for 54,536 persons. The women migrate in equal numbers as the men to these estates, no doubt because of the ease with which they can obtain work there. The emigrants to other provinces in India are not so important numerically. To Bombay, as is to be expected, one finds twice as many men as women emigrating. A high proportion of female emigrants go to the adjacent districts of Orissa.

The tabular statement on the previous page shews that the workers in industrial establishments are chiefly recruited from among the Hindu castes; that the Mussal-

Proportion of principal castes in industries

mans contribute between 6 and 8 per cent,	while the Indian Christians contribute over
13 per cent of the skilled and over 7 per cent	of the unskilled workers.

It is not surprising to find so large a proportion of Hindus, as they form 88·7 per cent of the total population, but though the Christians in the Province are only half as numerous as the Mussalmans their contribution to the labour force in industrial occupations is considerably larger.²

Among the Hindus the principal castes undertaking industrial work are the *Adi-Dravidas* or *Panchamas* known as the "depressed classes" and including within their number such castes as the *Paraiyan*, the *Mala*, *Pallan*, *Madiga*, *Chakkiliyan*, *Cheruman* and *Holeyas*³. Amongst these the most numerous are the Paraiyans, Malas and Pallans who are chiefly engaged in agricultural labour, while the Madigas and Chakkiliyans who are the next largest, are the leather workers of the Telugu and Tamil country respectively. The *Vellalas*, who contribute so large a

1 Census of India 1921, Vol. XVIII Madras Part I, Report page 48.

2 Census of India 1920 Vol. XIII Madras Part I, Report p. 58.

3 Census of India 1921 Vol. XIII Madras Part I, Report p. 158.

proportion both among the skilled and unskilled workers, are a comparatively well-to-do agricultural caste, more than half their number being owners and tenants of land¹. The *Vaniyans* are also an agricultural caste while the *Balijas* are both traders and agriculturists. From this it will be seen that the labour for industries is drawn chiefly from the 'depressed classes' and from the important agricultural castes. The *Tryans* who also contribute workers to the skilled and unskilled classes are the toddy-drawers of the West Coast, while the *Nadars* who are only found among the unskilled workers are the toddy-drawers of the South. But large numbers of both these castes are also engaged in agriculture².

(vi) CENTRAL PROVINCES

The Central Provinces and Berar are not important from an industrial point of view. At the Census in 1911 it was calculated that about three-fourths of the population were agriculturists and that of the remaining quarter only about 10 per cent were engaged in industries³. Of this number only a very small proportion are employed in industrial establishments.

The principal industry is the textile, but while in 1911 it gave employment to 133,797 males and to 102,586 females⁴ only

Principal organ-
nised industries 18,419 males and 8,546 females were factory employees⁵. These however form a large proportion (48 per cent) of the total factory population. Next in importance come mines and quarries which employed 26 per cent of the total.⁶ The numbers engaged in the other factory industries are comparatively small. Food industries employed 3,295 men and 1,950 females, but more than one-third of the men and more than one-half of the females so engaged find employment in the jerked meat works at Saugor. Railway workshops which numbered 13 in all only employed 1,697

1 Census of India 1921 Vol. XIII Madras Part I, Report p. 220.

2 Census of India 1921 Vol. XIII Madras Part I Report pages 219, 220.

3 Census of India 1911 Vol. X Central Provinces and Berar Part I, Report page 244. (Figures for 1921 not available, so figures taken from 1911).

4 Census of India 1911 Vol. X Central Provinces and Berar part II, Tables XV page 214 (British districts).

5 Op. cit. Table XV E page 308.

6 Op. cit. Table XV E page 308 and take XV E Part II page 316, *et seq.*

males and 80 females. The gun-carriage factory in Jubbulpore employs 1,525 males.

The districts which are of importance industrially are Nagpur, Wardha, Amraoti, and Akola where there are both cotton-spinning and weaving mills. The collieries are situated in Narsinghpur, Chanda, Chhindwara, and Betul and the manganese mines are situated in the Balaghat, Nagpur and Bhandara districts.

The agricultural settlement of the Central Provinces is on very similar lines to that of the United Provinces, the assessment

Sources of labour supply being fixed for 30 years at a time. The landlord is in some parts a zemindar,

Government having farmed out its rights, and in others the tenant holds the land directly from Government. The holdings are comparatively small and though parts of the province are very rich, as in the cotton growing districts of Berar and the wheat growing districts of Narsinghpur, yet in others the labourer only earns a precarious livelihood. At times of bad harvest he is compelled to enter the cotton-mills in Nagpur or to become a miner in the province itself or to migrate into the Bengal coal-fields.

In spite of the scarcity of factory work the Central Provinces and Berar attract a large number of immigrants. In fact their number far exceeds the number of emigrants. The United Provinces have contributed a larger number of immigrants than any other province. "They include persons of all races and occupations, but the temporary immigrants are mostly contractors and labourers in connection with road, railway and irrigation works or upcountry soldiers temporarily located with their regiments."¹

Regarding the castes that seek industrial employment unfortunately the data collected at the time of the 1911 Census were not

Principal castes in organised industries tabulated, but Mr. Marten, the Census Superintendent, states that it "varies chiefly according to the tract in which the majority of the factories of any kind are situated."²

He adds that in the mines and textile factories the *Mahars* are

¹ Census of India 1911 Vol. X Central Provinces and Berar Part I, Report page 50.

most numerous among the workers, forming 28 per cent of the workers in the mines and 32 per cent in the cotton mills. Muhammadans, he points out, are found in the textile factories, in the gun-carriage factory, railway factories and printing presses and are mostly skilled workmen in the machinery or workrooms. Most of the other workers are drawn from the various labouring classes, and except in the case of the cotton industries there seems no particular tendency for the industrial castes to enter the factories of their industry. There are, however, a few *Kacheras* (glass workers by caste) in the Jubbulpore glass factory and *Lohars*¹ (blacksmiths by caste) are employed in workshops of all kinds.

(vii) ASSAM

Tea plantation is practically the only industry in Assam. There is a small coal field in the north western part of the province and petroleum is beginning to be worked in small quantities in isolated spots. The mineral resources of the province have not been seriously worked as yet, partly owing to lack of communications and partly because of the absence of a local supply of labour. Leaving out the aboriginal or hill tribes who have not yet been attracted to settled forms of occupation, the Assamese themselves are reputed to be indolent and unenterprising in character. Moreover the province is developing very fast under a settled form of Government during the last hundred years and there is very little surplus labour among the local population for purposes of either agricultural or industrial development. The tea-plantations have therefore to rely almost entirely on imported labour. The total number employed in industrial establishments 1921 consisted of 282,019 males and 249,208 females² and of these the majority are employed on the tea-gardens. The largest tea-gardens are found in the districts of Cachar, Sylhet, Darrang, Sibsagar and Lakhimpur.³ As we have seen when dealing with the other provinces, the tea-gardens of Assam draw their labour from such distant parts as the Telugu country in the province of Madras,

1 Census of India 1911 Vol. X, Central Provinces and Berar Part I, Report Page 255.

2 Census of India 1921 Vol. III Assam Part II Table XXII part I page 298.

3 Op. cit. Table XXII part II page 302.

from the aboriginal tribes of Chota Nagpur, from the precarious agricultural tracts of the Central Provinces and from the congested districts of Bihar and the United Provinces. For many years the planters of Assam employed a special recruiting establishment in the likely areas and corporate arrangements are still in vogue for the recruitment of labour for the whole of the tea-industry in Assam.

Many abuses used to take place in former days in the course of recruitment and transport of the labour to the tea-gardens. To protect the labourers on the one hand and the planters on the other, special laws were enforced. Although these laws have now been considerably modified and relaxed,¹ they have not completely disappeared. An enquiry into the labour system in the Assam tea-gardens has recently been concluded by an important committee appointed by Government, and it is possible that further changes in the law may take place². I have not had an opportunity of visiting the Assam tea-gardens or of studying the problems at first hand. These problems are extremely controversial and beyond the references made at chapter V I refrain from making any detailed comments.

(viii) PUNJAB

The industrialization of the Punjab has not as yet proceeded very far. In the latest Census returns, 1921, 57,019 males and

Extent and Local distribution of organised industries 4,217 females are returned as employed in industrial establishments. The Railway workshops of which the principal are at Lahore and Rawalpindi give employment to

over 16,800 men,³ but apart from these two places there are practically no large factories in the Province. The textile and connected industries give employment to 12,073 males and 1,758 females. These persons are chiefly engaged in seasonal factories for cotton-ginning. There are a fair number of brick kilns scattered all over the province employing 5,833 males and 1,664 females. Mention should also be made of the woollen mills in

1 See Chapter V of this book.

2 Report of the Assam Labour Enquiry Committee 1921-22.

3 Census of India 1921, Vol. XV Punjab Part II Table XXII, Part II page 404 *et seq*

Dhariwal and Lahore and Amritsar in which 1,888 men and 74 women are engaged, and of the carpet factories, mostly at Amritsar, which employ about 1,500 persons.¹ There is a small coal-field at Dandot close to the Salt Range: another interesting mining industry is the extraction of salt from the mountain at Khewra. The workers in the Salt mines are all local people who have carried on this industry for generations. The salt mines are now a State monopoly.

There is very little imported labour in the Punjab. Over 80 per cent of those employed in factories either belong to the district

**Local supply
of Labour** in which they are working or have come from adjacent parts Among immigrants the largest number come from the United

Provinces and they are to be found principally in the Railway workshops or on skilled work in the cotton spinning and weaving industries.

Comparatively speaking there are a large number of *Sheikhs* (Musalmans) in the factories. Next in importance are the *Aranis*

**Principal castes
in organised
industries** and then the *Brahmans* There are also numbers of *Khatris*, *Chamars*, *Lohars*, *Rajputs* and *Jarkhans*. The *Awans*, *Chuhras*, *Jats* and *Julahas* are found only among the grades of unskilled workers.

The comparative backwardness of industrialism in the province does not indicate any corresponding defect in the character of the

**Causes of
retarded
industrial
development** population. For the Punjabi artisan is to be found in distant provinces, though in small numbers, and he has made a name for himself even outside India. The fact is that, thanks

to the highly important irrigation canals that have been undertaken in the province in the last fifty years, there has been an enormous extension of agriculture This has absorbed large numbers of agriculturists and labourers A comparatively large proportion of the population of the province find employment in the army. There is at present neither surplus capital nor surplus labour in the province. But the extension of agriculture is bringing much wealth

¹ Census of India 1921 Vol. XV Punjab Part II Table XXII Part II page 404
et seq.

to the people, sections of whom are also keen traders. The province has large sources of water-power and it is probable that important fields of petroleum will be found to be workable. The physique, intelligence and enterprise of the people would then become important factors in the problems arising out of a rapid development of industries.

CHAPTER V

CONDITIONS OF EMPLOYMENT

The Industrial Revolution in England drew men and women from their villages in large numbers and caused them to live in close proximity to their work in the large industrial centres which grew up. In consequence they could no longer work both on the land and at a trade, but had instead to set themselves to learn how to manipulate machinery. Gradually they lost their agricultural skill and became entirely dependent on employment in factories for their livelihood. These are some of the more obvious consequences of the change that took place in England, but what has not received so much attention is the effect that this divorce of factory workers from the land has had on the health of the factory population and on their mental development. It is hard to measure such effects because ordinarily workers are not medically examined on entering a factory, nor during the course of their employment. The war, however, furnished a unique opportunity for such study. A special enquiry was instituted into the effect on health of the employment of women in munitions factories and it was found that not only did ill-health compel many to leave at a comparatively early stage, but that the incidence of sickness increased with the length of service. The older women and those who were married were less able to stand the strain, but even in the case of the younger and unmarried women a similar result was discovered.¹ Following this a further inquiry was instituted by the Industrial Fatigue Research Board to discover the effect of different occupations on health. For this purpose records kept by large Insurance and Benefit Societies were examined with great care. It was found, however, that owing to the fact that certain important items had not been recorded it was not possible to

¹ Report No. 13 of the Industrial Fatigue Research Board entitled 'a statistical study of Labour Turnover in Munition and other factories by Broughton, Newbold and Allen page 18 *et seq.*

institute any accurate comparison between the morbidity rates of factory employees and those of the general population. Although this lack of data precluded a proper comparison, other inquiries have been instituted in certain specified trades and facts are being collected on which it is hoped that it will be possible to base definite or relative conclusions.

The effect of employment in factories on the mental development of the workers is no less serious. In the early days of the industrial revolution small children, regardless of age, were taken into factories in large numbers. This has now been remedied but there can be no doubt that in the past the mental development of children was seriously hampered by their being allowed to take up an industrial career at so early an age. It is true that in a large proportion of cases young persons obtained training in their respective trades but this could not take the place of a general education fitting them to play their part as citizens in the national life. Recent research into fatigue has shewn that the centre of fatigue is the brain. The attempt therefore to supply education after the physical work of the day is over can have only partial success. A brain already laden with the waste-products of physical activity cannot be expected to respond to intellectual stimuli with any efficiency.

It may be contended that the work itself is educative. Those who have visited factories know that in the great majority of cases this is not so. What educative value can there be, for instance, in standing by a machine and passing in slips of paper which come out ruled the other side? Similarly, although the work of making boots and shoes requires considerable skill, if done by hand, when it is done by machine, as is the case nowadays in factories, the boy or man has merely to guide the leather through the machine and can attain the requisite skill in a very short space of time. The tremendous waste of human ability that this involves is a very serious feature of factory life. Frequently so little skill is required that the wages given are only sufficient for bare subsistence. A man or woman, day after day, has to tend the same machine, do the same work and return home exhausted only to recommence the same process the next morning. The insufficiency of his wages and the small amount of leisure prevent him from finding a proper outlet for his real abilities. He becomes

the mere adjunct of the machine, to be turned adrift when there is a cessation of the demand for such machine-made articles.

This fear of unemployment is an ever-present anxiety in the minds of workers. Wage-earners have not yet obtained the right of continuous employment, but are liable to be dismissed at short notice. Employers are therefore not obliged to look ahead and to spread out the work. They can take on men and women and dismiss them at will. In most cases savings from the wage earned during the period of employment are quite insufficient to tide over periods of enforced idleness. A man loses his physique, his clothes get shabby and he finds it even harder than before to get engaged. In the early days of the growth of factories men were forbidden to combine. They could do nothing then to prevent unfair dismissal. The gradual growth in power of the working classes is however beginning to have a wholesome effect in helping to remedy some of these more obvious cases of hardship.

The excessive over-crowding in towns that ensued as a result of the growth of factories not only had dire effects on the health, but also on the family life of the people who had to crowd into these congested areas. The growth of slums in industrial centres became an almost invariable concomitant of the growth of factories. A visit to any slum area is sufficient proof of the statement that it is almost impossible to expect those who have to live under such conditions to lead a happy and contented family life.

Factory life has obviously many drawbacks in England, but the experience gained during the last hundred years and the

Movement to counteract evil effects gradual growth of a more humane feeling towards those who have to earn their livelihood by hard physical toil have done much to help to ameliorate conditions. The State, employers, and social agencies have all taken up the problem. Labour too has become articulate and has devised machinery for enforcing its demands

The State, which at first adopted a policy of *laissez faire*, has definitely asserted its right to look after the well-being of its citizens engaged in industrial employment.

(a) **The State** Legislation has been passed limiting the hours of work in factories and prescribing certain minimum standards for the health and safety of the operatives. There are in addition a whole host of regulations in force

to protect the health of those engaged in dangerous and unhealthy trades. Education has been made compulsory and at the same time the age of employment in factories has been raised. An efficient system of inspection both of factories and schools has been instituted. Wages Boards have been established and in the less organized trades Trade Boards have prescribed minimum wages. To help those who are seeking employment Labour Exchanges have been established. By going to an Exchange a man can find out exactly what openings there are, what skill is required and what are the rates of wages. To tide over periods of unemployment an insurance scheme is in force. The difficulties and drawbacks that arise either in consequence of ill-health or through an industrial accident have been mitigated by a Health Insurance scheme, by the compulsory payment of compensation and by the recognition of employers' liability. The Trade Union movement has received recognition and protection by the law. These are some of the more obvious steps taken by the State. They need be only very briefly referred to in this book.

State action to ameliorate conditions is rendered possible only in so far as it is in accord with public opinion. Some of the credit

(b) **Employers** for State action must be ascribed to the support that has been received from employers.

Some employers have been in the vanguard of progress and by their successful attempts to improve conditions have furnished the best justification that the State needed when bringing more backward employers into line. In the early days Robert Owen was a leading employer in the reform movement. Later, similar action was taken by such firms as Cadbury, Rowntree and Lever. Nowadays there are many employers who look after the welfare of their workers in a wholehearted manner.

The work done by social agencies in England is so vast that it is very difficult to give a brief summary of it. In many cases

(c) **Social agencies** the State itself has taken over what was at first purely voluntary social work. Thus

all forms of aid at times of peculiar hardships, such as sickness or unemployment, are now given by the State not as a charitable measure but because it is recognized that in modern conditions such aid is absolutely necessary. Again not only have children to be educated but their health has to be looked after and advice has

to be given them when they are selecting a career. All this is now done largely through municipal agencies. Facilities for recreation and special forms of education were also at first provided for workers through social settlements and play-centres which were managed by voluntary social workers. These are now State-aided. In short the needs of the workers have first been discovered by keen social workers and when the attempt to supply these needs has been organised on a sound basis the State has frequently stepped in with pecuniary help.

The Trade Union movement may be regarded as the expression on the part of labour of its need of humane conditions of work.

(d) Labour

Now that labour has become articulate it has determined not to put up with conditions that are unsatisfactory from a mental, moral or physical point of view. The mere expression of such a demand on the part of those who are principally concerned in its fulfilment has helped considerably to bring about its achievement. A standardized system of wages—one of the first demands made by the Trade Unions—is only one among many benefits secured. Trade Unions have been largely instrumental in lessening the hours of work and getting them reduced even below the recognized legal limit. Yet another advantage given to workers by this movement is security against unfair dismissal. A strike will often ensue should the workers have reason to think that an employer has dismissed a man unjustly. At a time of strike the men are enabled to enforce their demands by the funds placed at their disposal by the Unions to which they belong. Trade Unions also maintain funds to enable workers to tide over periods of illness.

The hardships suffered by the workers in England as a result of the rapid industrialization of the country have thus been miti-

Beneficent effects of the Industrial Revolution gated by the adoption of various remedial measures. On the other hand we must not overlook the many advantages that have accrued to the workers through the factory system. There has been a general intellectual awakening throughout the country. The workers have become integral parts of a vast organization which is not merely national but is world-wide and international. They are in consequence called upon to deal with problems which affect the well-being of persons all the world over. Their power

to handle such problems is increasing daily. In many cases they have been freed from servility to a landlord. The payment of higher wages and the possibility of moving from one place to another and also from one country to another have had a great educative effect. So well, in short, are these advantages recognized in England that it is safe to predict that never again will the majority of the inhabitants be content to be in the condition in which they were before the advent of the Industrial Revolution.

While the Industrial Revolution is a *fait accompli* in England the process is only gradually taking place in India and agriculture

**Conditions in
India**

still holds its own. The immediate consequence of this is that while in England a definite industrial class has grown up with recognized rights and obligations, in India such a class is only slowly coming into being. The industrial workers in India form a very small proportion of the general population and on the whole do not seek industrial work as a permanent means of livelihood. Further their rights and obligations are also correspondingly slow in receiving recognition.

I have already described the distinctive features of village life in India. I need only briefly recapitulate them here, before passing

**Recapitulation
of features of
village-life**

on to contrast them with the features of factory life. In an Indian village, life is a comparatively simple matter. A man is either wholly occupied in agriculture or at some trade, or he combines both these occupations. Many villages, though their number is fast decreasing, are still to a large extent self-supporting and consequently there is room for a variety of occupations. In a great many cases the man follows the hereditary calling of his parents. In this way not only is hereditary aptitude passed down to succeeding generations, but also the traditional method of doing the work is taught to all members of the family. Each home becomes a training ground. Although a joint system of work prevails there is division of labour. Thus, the women spin the cotton and prepare the yarn for weaving, but the weaving itself is done by the men. Similarly in other handicrafts the women are responsible for some of the processes while others are from time immemorial left to the men. The work though often requiring considerable skill is not strenuous on the whole and is generally performed in a leisurely

manner. The hours are not fixed and a man can take frequent rest intervals during the day. A close personal relationship exists between the workers and those for whom they work. They all know each other and join in the festivities peculiar to their caste. Family life yields maximum satisfaction and time-honoured customs and rites are duly observed. Should it become necessary for one or more members of the family to migrate to another place or province to seek remunerative employment, those who are left behind will preserve the integrity of the family life till his return.

Before passing on to deal specially with Bombay, Calcutta and a few other important industrial towns which may be taken as

General features of factory life in India representative of the industrial centres of India, some features of factory life which are common to all provinces will first be mentioned.

A notable peculiarity that strikes one in large industrial centres in India, such as Bombay and Calcutta, is the difficulty that confronts a man who wishes to continue the family life to which he has been accustomed. So great are these initial difficulties that many a man has to decide from the start to leave his family behind him. If his wife and son do accompany him with the intention of working themselves, then there is, in the great majority of mills, no person to whom he can explain his personal circumstances and who will be sufficiently interested in them to see whether it is possible for the entire family to obtain employment at the same mill. If by chance his son gets employment at the same mill, father and son will, in all probability, not work near each other nor will the father have the privilege of teaching the son. If the wife is so fortunate as to be engaged in the same mill she will, in the majority of cases, be relegated to another department. They may all enjoy the rest interval together, but the man will probably prefer to sit with his co-workers. The son, if he is under 15, will only be allowed to work half-time and so will return home alone and even if he has a brother also working at the same mill their hours will probably not coincide. In Bengal there is a complicated shift system in force which adds still further to the difficulties of family life. The number of shifts makes it difficult for the members of a family to have the same hours.

The excessive overcrowding which, generally speaking, factory workers have to endure has an even more deleterious effect on

family life. In many cases knowledge of these facts prevents a man from bringing his family with him, for in India family-life is most zealously guarded and seclusion and privacy are sought after by all. Town life cannot but have a very disintegrating effect on it, for when a man does bring his family with him they have almost invariably to live crowded up with other families and all hope of privacy disappears. An Indian woman naturally takes a pride in keeping her home clean and all her cooking utensils, which are often her only tangible possessions, shining with brightness. This is no longer possible when she has to live in an insanitary *chawl* (tenement building) in Bombay or in a crowded *bustee* (labour settlement) in the Calcutta suburbs. All the cooking with its attendant smoke soon blackens everything, for chimneys and fireplaces are unknown and even the clothes which are hung up to screen the verandahs very soon become dirty. The atmosphere in such circumstances becomes vitiated and diseases such as plague and influenza naturally thrive in this environment.

Another serious feature of factory-life is its effect on health. Very frequently the workers have to live crowded together in insanitary dwellings. The Census report for 1911¹ gave the number of persons per square mile in the following towns:—

Effect of factory life on health

Bombay,	42,585;
Calcutta with suburbs	24,841;
Howrah	20,985;
Cawnpore and Cantonment	18,260

Though housing conditions are bad in all these cities the conditions in Bombay are the worst. The density of Bombay Town and Island as a whole is 78 persons per acre which compares unfavourably with London which had in 1922 an average density of 60 persons per acre.² Further many wards of Bombay city have a very much higher density. Thus in C ward there are sections where the number of persons per acre is over 500, similarly in B Ward there are sections with a density of over 400 persons.³ While the other industrial centres mentioned above have a lower average density than London it may be pointed out that the municipal areas in these towns include the "civil station" which almost invariably contains large open spaces which vitiate the results. Further the majority of

1 Census of India Vol. 1 India Part 1, Report page 54.

2 Census Tables of County of London for 1922.

3 Census of India 1921 Vol. IX Cities of Bombay Presidency Part II—City Table I page V.

the houses except in Bombay or Calcutta are seldom more than one storey in height. The consequent crowding together of the inhabitants has more serious effects than in places where buildings are several storeys in height. Cawnpore may be cited as a striking illustration of these facts. The average density per acre in the "Civil lines" is 12·4 persons while in three of the other Wards of the city the density is more than 125 persons per acre and from 49 to 81 per cent of the population of those parts live in one room.¹

While London has the advantage of an efficient drainage system, a good water-supply and a large staff of sanitary inspectors, it has not yet been found possible to make provision to the same extent for these necessities in India. The consequence is that while the death rate in England for the total civilian population per 1,000 living was 12·4 in 1920² it was 30·84 in India.³ Similarly, while the infantile mortality was 80 per thousand births in England, it was 556 in Bombay city, 386 in Calcutta and 282 in Madras city. Even if the figures for the province as a whole are taken (a fairer method of comparison) the results are sufficiently startling. For the provinces of Bombay, Bengal and Madras the accorded death rate was 183, 207 and 161 respectively. Further, the contrast between the agricultural work and factory work is even greater in India than in England and the consequences are therefore accentuated. In a recent publication on health the expression "children of the sun" is used and the health-giving properties of the sun are discussed. While no one would contest the beneficial influence of the sun, its even greater importance in this respect in India should be emphasised. The races in this country having been born and bred for many generations in tropical heat, have become dependent on it as a prime necessity of their existence. Work in factories and more especially in underground mines deprives to a great extent those who follow these occupations of this necessity. This fact should be borne in mind in connection with the subject of labour turnover, long hours of work and time keeping.

1 Census of India 1921 Vol. XVI Part I Report Appendix E page 33

2 Annual Report of the Chief Medical Officer of Health of England for the year 1920 page 10

3 Annual Report of the Public Health Commissioner with the Government of India for 1920 pp. 56 and 57.

The need of securing a certain modicum of sunlight may be one of the reasons why the agriculturist even when he becomes an industrialist clings tenaciously to his agricultural rights and to his village home. The divorce between these two modes of life, which is an almost universal feature in England, has not yet taken place in India. Return to the health-giving occupation of agriculture doubtless helps to keep the labour force in a state of greater physical efficiency than would be the case if factory work was the sole occupation. In some cases, a permanent industrial population is growing up round the factories. It is desirable that satisfactory conditions should be secured for this growing class in order to prevent the deterioration of their physique. The great majority of factories have to face this fluidity of their labour force and to make arrangements accordingly. In the mining industry, where the workers enjoy still less opportunity of spending any time of the day in the sun, the fluidity of labour is even more marked.

While an investigation of factory conditions and of the housing conditions under which the great majority of the workers live

* can leave little doubt as to the serious effect
Lack of data relating to health of such conditions on health, there are no statistics available relating to the industrial population *per se* which would enable a comparison to be made between their health and that of the non-industrial population living respectively in the town and in the country. There are not yet sufficient medical practitioners in India to enable such an inquiry to be carried out with any measure of success. The great majority of persons receive no medical aid whatever during the course of an illness. Nothing can therefore be known as to the cause of their death nor is it possible at present to arrange for this maintenance of a record of the occupation at time of death. Even if arrangements could be made, many an industrial worker would be returned as an agriculturist because he had returned to his village to die, although the cause of his death might have been consumption contracted in a mill. It may be noted that in the Ratnagiri district it is a general belief that many men return to die there of consumption contracted in the mills.

The possibility of return to agricultural work robs unemployment of the dire results that accompany it in countries where

industrialism has reached a more advanced stage. The low yield of the land and the large numbers that have to subsist on the produce of comparatively small holdings mean, however, that the return of an additional member will lower still further the standard of living for the whole family. In spite of these disadvantages there can be no doubt that the possibility of this return to agricultural employment puts the Indian labourer in a much stronger position than a factory-worker in England to whom no such alternative is open.

So great is the ignorance of the ordinary villager of the work done in factories that when he goes to undertake it he has very

Ignorance of factory conditions little knowledge of the kind of work he will be expected to do. He has perhaps been recruited by a *sirdar* or recruiting agent who has given him an advance of money, and if he does not keep his contract he renders himself criminally liable. The Workmen's Breach of Contract Act which gives this power to employers is now generally regarded as a measure which should be repealed. The Government of India in a recent debate (February 20th, 1923) in the Legislative Assembly has pledged itself to bring in a bill which will have the effect of rendering all such forms of contract illegal after 1926.

In addition to the strangeness of the work and surroundings, the man has to adapt himself to a completely novel aspect of the relationship with his employer. When he enters a factory, he is paid a fixed wage. If ill, or absent from work, instead of meeting

New relations between employer and employed with kindly solicitude about his welfare, he finds that he has rendered himself liable to a fine. If he cannot adapt himself to the work he is dismissed and has forthwith to endeavour on his own initiative to try and find work elsewhere or has to return home. Very frequently he finds himself burdened with debt. He has not received any wages till the completion of the first month of his employment and sometimes much later and so has been compelled to borrow at high rates of interest. Some employers give a certain grain allowance, the value of which is deducted from wages in the following month, but the majority do not. The custom of withholding wages and paying them a month in arrears doubtless causes severe hardship. Employers justify it

by urging that it is the only way they can keep any hold on their men. Whether it is justifiable or not to keep a hold in this way is open to question.

I shall now pass on to compare the advantages that a factory worker in England has over his fellow worker in India. Though

**Comparison
between
conditions in
England and
India**

the balance of advantage undoubtedly lies on the side of the man in England the worker in India has some advantages. Having a home and work to which he can return when he ceases to be employed in a factory gives him a certain strength. On the other hand his power of bargaining is considerably weaker. Trade Unions are only beginning to be organized and do not at present assist a man much in the process of bargaining. Generally speaking, a man is so ignorant when he comes to take up factory work that he is obliged to accept the terms offered. There is no standard rate of wages. In Bombay, for instance, the wages vary from mill to mill and this variation is often one of the causes of a strike. The Industrial Disputes Committee, which was appointed in Bombay to examine into the cause of strikes and to suggest remedies, very strongly recommended that standards should be adopted for the payment of wages. The difficulties are immensely increased in industries where smaller numbers are employed and where there is not even the nucleus of a Trade Union. A villager is, in such instances, in a particularly weak position. He has left his home because of pecuniary need and cannot return immediately. He is therefore practically compelled to take what is offered.

This brings us to yet another advantage that the English factory worker has over the Indian. Mention has been made of the facilities offered by the Labour Exchanges in England which put a man in possession of the relevant facts before he migrates in search of employment. There is no such agency in India. Rumour alone guides men to different localities, though in some cases there are certain men who recruit for mills and factories. These men are either accredited agents, as in the case of tea-garden labour and of some mines, and are mainly employed as such, or they are 'jobbers' who bring workers to the mills and factories and then supervise their work. A third method is for the recruiters themselves to get engaged to a contractor together with

the whole labour force under them. In such cases the recruiter draws the wages of the men recruited by him and in some instances that came under my notice he received in addition a sum calculated as a percentage of the wages bill to enable him to provide housing for the workers. Firms state in support of this practice that they have neither the capacity to tap sources of labour supply nor are they in a position to control the labour after it has arrived. The case for utilising the services of employment superintendents is consequently a strong one. An accredited agency for the supply of labour required would also help to mitigate many of the hardships arising from the present somewhat haphazard methods of recruitment.

Another advantage given to workers by the Trade Union Movement in England is security against unjust dismissal. In India workers are not protected. It is true that men sometimes go on strike if one of their number has been unfairly dismissed, but, owing to the unorganized state of labour, it is not difficult for a manager to engage substitutes in place of those on strike. The power to strike is undoubtedly present but the power of the workers to enforce their wishes by doing so is true only in a minority of cases. Powerful organizations of employers have come into being in India, but there is as yet nothing comparable to them in the labour world. Fuller information regarding the Trade Union movement will be given in the last chapter.

Members belonging to the Unions in England are at times of strike helped to maintain existence by Trade Union funds. In India such funds are very small and a worker on strike has ordinarily to face the alternative of starvation or of return to his village home.

It will thus be seen that in western countries trade unions secure to their members fair treatment, standard wages and subsistence during a time of strike. They also maintain benefit funds to enable workers to tide over a period of illness. The workers can also secure many benefits for themselves by joining the great Friendly Societies. They can insure against sickness, unemployment and death in such Societies. But they are not left to their unaided resources even in these cases. There is now in force in England a State system of insurance against sickness and unemployment. Women are secured maternity benefits at the time

of childbirth. There is as yet nothing comparable to this in India. Some up-to-date firms have a sickness benefit fund and also a maternity benefit fund. There are also a number of other firms in India with benefit funds, but on the whole they are exceptions. A system of State insurance against unemployment is not needed in India as a man can generally return to his village if thrown out of factory employment.

A system of workmen's compensation in case of injury or death arising out of accidents is a necessary corollary of industrial life. Workmen in England have been safeguarded in this way since the year 1881 but in India legislation to enforce the liability of the employer has only just begun. Here again up-to-date employers have in India voluntarily recognized their obligations in this respect, but this was by no means universal. Considering the poverty of the majority of the population in India and their consequent inability to provide against accidents, the Bill, which has been recently passed, has remedied a crying evil. The provisions of this enactment will be dealt with in greater detail in the final chapter.

In short the protection secured to workers in England by legislation and by Trade Union agreement is far more extensive

Progress of labour legislation in India than is the case in India. In India there is very little protection by Trade Union agreement and legislation is unfortunately bound to proceed more slowly than in England.

When it was first attempted it met with very serious opposition, but public opinion is gradually becoming enlightened and employers are beginning to realize the utility of common standards. A great deal still remains to be done, more especially in the way of enforcing the legislation that has already been passed. The existing staff of inspectors is quite inadequate and needs strengthening. Not only is an addition required to their numbers but the time is long overdue when women inspectors should be appointed to look to the conditions under which women and children are employed. Medical inspectors are also urgently required. A step in the right direction has been taken by giving the Directors of Public Health in the various provinces the power of factory inspectors. Moreover workers in India suffer from many diseases which seriously hamper their efficiency. It is therefore desirable

that in addition to medical inspection of factories, general questions relating to the health of the workers should be carefully examined and necessary ameliorative measures should be adopted. Thus, it is known that hookworm disease is a potent cause of inefficiency. In the case of this disease modern scientific treatment is cheap and effectual and yet it is carried out only in a few places. An industrial medical service is sorely needed in this country. It would be well if employers would combine to supply such a service for their workers. The small cost would be adequately repaid. In England there is not the same need as, owing to the system of panel doctors, workers can secure medical attention when ill.

Yet another benefit which is secured by legislation for workers in England is freedom from undue fining. Truck Acts have been in force since 1831, but in India the workers are not protected in this way. Readers in England will be surprised at the power that employers in India have over their workpeople. If they recollect at the same time that the great majority of the workers are illiterate and in many cases are incapable of understanding an elaborate system of fining, they will be in a better position to appreciate how great a need there is in India for something similar to a Truck Act.

We have seen that conditions in factories are regulated by legislation in England and also to some extent by Trade Union rules and regulations. These however only prescribe certain minimum standards. Employers, who wish to make their workers feel that their right to good conditions is recognized by the management, have organized Works Committees in their factories. These Committees are made up of elected representatives of the workers and of the management. When they meet they discuss conditions and suggest improvements. Their importance is generally recognized. In India the Government is now endeavouring to foster such Committees in State workshops and to encourage private firms to do likewise. Two important firms in Bombay have succeeded in establishing such Committees. They have been helped in their efforts by the Servants of India League, who have done all they can to make the workers realize the utility of such Committees.

The welfare movement in England has been instrumental both in improving conditions of employment and in bringing about a

close personal relationship between the workers and the management. There can be no doubt that this must be counted as another advantage that workers in England have over those in India. This is not intended to imply that the welfare movement is non-existent in India. The exact stage of its development will be discussed later, but hitherto it has not succeeded in doing much towards bringing about better relations between employers and employed.

While therefore it must be admitted that the English factory-worker is on the whole in a better position than the worker

Advantages enjoyed by factory employees in India we must not forget that in India as in England employment in factories brings

certain advantages in its train. In India it enables a man to earn the money he needs for agricultural purposes and often enables him to improve his status. Instead of being a landless labourer he may with his savings become a tenant, the proud possessor of a piece of land. The experience that he has gained in the city has in a great many cases given him a certain amount of mechanical skill. He is therefore more ready to adopt the mechanical appliances that are now gradually being utilized in agriculture. He is in a better position to bargain. He has, perhaps, a little capital and he also knows his own economic value better than he did before he gathered new experience in a factory town. He is more open to ideas and will accept suggestions as to how he may improve the yield of his land. Socially, too, his position is improved. He will no longer be willing to accept the position of a virtual serf on the land. Further he has been accustomed to meet men of all castes and to work alongside of them. He will therefore be unwilling to be treated as untouchable or unclean. He will not be content to accept the views of the conservative elements of his caste on each and every matter, but will endeavour to persuade them to take broader views.

All this is true of the man who has been successful and who has returned to his village in a stronger pecuniary position and with his health unimpaired. There is, however, another side to the picture. As conditions are at present there can be no doubt, though little statistical evidence is available, that many a man returns to his village a physical wreck. The work in the factory and the unsatisfactory housing conditions have taken away from him practically his only asset in life—his health. There was nobody

in the factory particularly interested in seeing that so far as possible he did not disregard the laws of health. In his hurry to put together some savings out of his wages he has not perhaps even bought sufficient food for himself, or perhaps the climate of the city, the physical conditions of the factory and the unusual strain of the work have proved detrimental to his health. Factory work is of comparatively recent growth in India. The strict discipline and the long hours of work cannot fail to be irksome to a man who has hitherto been accustomed to neither. The need to prevent overstrain is consequently greater in India than in England. It is needed for the workers and also for the sake of securing future workers. A man who returns a physical wreck to his village acts as a very strong deterrent and prevents many another from running the same risk.

(i) BOMBAY

A brief sketch was given in Chapter IV of the principle industries of the Bombay Presidency. It was seen that the textile

**Recapitulation of
the extent of
organised
industries**

and connected industries were the most important, giving employment to 67 per cent of the men and 85 per cent of the women out of the total engaged in industrial establish-

ments. The remaining industries were found to be those connected with dockyards and ship-repairing, engineering works, motor-car works and iron and brass foundries. Chemical factories, electric works and printing presses were also noted as giving employment to large numbers. It was pointed out that the majority of the industries of the Presidency were located in Bombay itself and that Ahmedabad, Sholapur and the East Khandesh respectively ranked next in industrial importance. In short Bombay besides being the centre of the cotton industry has large metal workshops and printing presses, tanneries, mechanical engineering workshops, aerated water factories, flour mills, saw mills, oil mills and a host of minor industries.¹

These facts are sufficient justification for describing at some length both the general conditions in Bombay and the conditions inside the cotton mills and factories. I shall then pass on to study the effects of these conditions on family life and health. Before closing the chapter I shall endeavour to contrast factory

¹ Annual Factory Report, Bombay, 1921, Statement No. III

conditions in the different industrial centres with the conditions obtaining in other forms of organised employment. Finally I shall attempt to gauge some of the effects of employment in factories on the villages from which emigrants come to take up this work.

Many of the difficulties confronting Bombay arise out of its rapid rise into industrial importance. In 1661 Bombay had a

**Rapid growth of
Bombay City** population of about 10,000 inhabitants.¹ At the time of the Census of 1872 this number had increased to 644,405 and at the time of the Census in 1921 it was 1,175,914.² Between 1872 and 1921 the population had, that is to say, almost doubled. Another source of difficulty is the large emigrant population, less than 200,000 out of the inhabitants having been born in the city itself.

In consequence of these facts the contrast between life in a village and factory life is greater in Bombay than in any other

Housing conditions

city in India. The parts of that city in which the factory population live are densely crowded. The average density of Bombay town is 78.05 persons per acre, in the industrial area the density is from three to five hundred per acre and in some parts it rises to over 700.³ The majority of the inhabitants (66 per cent) are housed in one-room tenements, the average number of occupants of which is over 4 persons.⁴ Of the rest, a large proportion occupy two rooms and only 20 per cent of the population live in three rooms or more. The condition of the persons occupying one room is nothing short of deplorable. Many of these rooms are occupied by two families and in some cases one room accommodates more than eight families.⁵

The difference between the housing conditions in Bombay and those in London has been graphically illustrated in the latest

Comparison with London

Census report.⁶ While 66 per cent of the Bombay population live in one room tenements with an average number of 4 persons in each,

1 Census of India 1911 Vol. I, Page 43.

2 Census of India 1921 Vol. VIII Bombay presidency Part I Report page. 51.

3 Census of India 1921 Bombay Vol. IX. Part II City Table I page V.

4 Op. cit. Bombay Housing Table VI A—page 33.

5 Census of India 1921, Bombay, Vol. IX, Part II Housing Tables VI A and VI B pages 33 and 39.

6 Census of India 1921, Bombay Vol. IX Part I graphs opposite page XVIII.

in London only 6 per cent of the population live in one room tenements of which the average number of occupants is 1.92. Conditions in Bombay are obviously far worse than in London.

This terrible state of over-crowding naturally carries in its train many other evils. Family life, in the sense in which it is understood in India, becomes impossible.

Effects of over-crowding There can be no privacy under such conditions. The effect on health is no less disastrous. (The Sanitary Commissioner with the Government of Bombay writes that the rate of infantile mortality in the city of Bombay is possibly the highest in the world.) The close relation existing between over-crowding and a high infant death rate is shewn in a table given in the Administration Report of the Municipal Commissioner for the City of Bombay for 1920.¹ According to the data collected more than 75 per cent of the total births occurred in families limited to the occupation of a single room or a portion of it. The mortality rate among infants born in these conditions was over 86 per cent. The proportion of deaths to births varies inversely as the number of rooms occupied by the parents. The high death rate, in such circumstances, can scarcely cause surprise especially when it is realized that "in the congested areas of the city houses four and even five storeys high will be found attached on either side and separated in the rear from a similar row of houses by a gully often less than six feet in width, which takes the over-flow from privies and affords access to the sweepers for the removal of the privy baskets."²

The drainage of the city of Bombay is a further potent cause of a high death rate. The report of the executive Health Officer reveals a highly dangerous state of affairs and accounts for the high death rate which is the feature of any epidemic that occurs in Bombay. At the northern end of the sewer system, we are told in that report, the sewers are incapable of carrying the quantity of sewage which enters them during the rains. In other parts the sullage water is taken into closed and open storm-water drains or runs on to small plots of land in quantities which are much too great for absorption. In yet other parts the over-flow from privies passes

¹ Report of the Municipal Commissioner for the City of Bombay 1920-21 Vol II, page 15.

² Op. cit. page 40.

into cess pools which are periodically emptied by carts. A number of these cess pits are approached by unmetalled roads which become impassable during the monsoon months. The Health Officer adds that "these fertile sources of disease and abominable nuisance" were being dealt with but on account of the heavy cost of material and the lack of sufficient water-pressure for flushing the worst cases only were being taken up at present.¹

The report² submitted by Dr Barnes to the Government of Bombay gives further details of these unsatisfactory conditions.

**Inquiry by
Dr. Barnes**

Dr. Barnes is an officer of the Women's Medical Service. Her services were lent to the Bombay Government by the Council of the Countess of Dufferin's Fund to investigate the conditions of women's employment in Bombay with special reference to the question of childbirth. In the course of her inquiry she visited many workers in their homes. She found many living in the ground floor or basement where the plinth was much below the road level and which in consequence must have been in a state of flood during the monsoon. She gives a graphic description of the cases of over-crowding that she encountered. As an example of a particularly bad state of affairs she describes a room, size 15×12 ft., which was the home of six families. No less than 30 persons occupied the room and three of the women were expecting to be delivered. Delivery would take place in a small space of 3 ft. \times 4 ft. screened off for the purpose. Each family had its own cooking place, a small brick erection made with three bricks placed at right angles to each other and without chimneys. The effect of such conditions on these expectant mothers can easily be imagined. That the death rate among children born in one-roomed tenements is high can thus cause no surprise. Dr. Barnes states that she saw many rooms answering to this description. She adds however that she found a very distinct improvement in housing conditions where the 'chawls' or dwellings had been provided by the millowners. It is only fair to add that the chawls built by

1 Report of Municipal Commissioner for the City of Bombay Vol. II. 1920-21 page 40.

2 Report by Dr. Barnes entitled "Maternity Benefits for Industrial Workers" published in Bombay Labour Gazette for September 1922, pp. 31-38.

the Improvement Trust of Bombay are generally a great improvement on others built before the Trust came into operation.

The great need of suitable housing for the operatives in Bombay has been receiving the attention of Government for some

Schemes for improvement considerable time. In 1920 the new Development Department of Bombay was constituted.

It has undertaken to provide 50,000 one roomed tenements for the working classes in Bombay. Another 13,000 are to be provided by the Improvement Trust and the Corporation are endeavouring to increase the number of their tenements.

Living thus in crowded areas it is not surprising that many workers anxiously await the day when they will be able to return

Influence of insanitary conditions on stability of labour to their villages. They are not, in the great majority of cases, able to balance the advantages and disadvantages with any degree of accuracy, but they cannot fail to be aware that their children die more easily and in larger numbers in the city than in the village. Could they compare the figures they would find that while the infantile death rate for the province was 18.3 per cent, it was at the same period (1920) 55.6 per cent for Bombay city. Even among adults they would find that there was a far higher mortality. In 1920 the rate of deaths per 1000 of the population was 26.81 for the Presidency in districts excluding towns, while in Bombay it was 48.8.¹ Apart from the greater unhealthiness of city life the higher death rate may in part be attributed to the better system of registration in force.

The cotton spinning and weaving mills are located on the island of Bombay, a short distance away from the well-to-do residential area. Owing to the extreme congestion most mills are closely surrounded by 'chawls' and other buildings. With exceptions in the case of recent structures, the mills are from four to five storeys high. Many of the difficulties with which managers are faced arise from this lack of space. The problem of housing labour is acute and within the factory itself it is difficult to secure adequate light and ventilation. Further, trouble in one mill easily spreads to the others and a minor strike may soon reach gigantic proportions.

¹ Annual Report of the Public Health Commissioner for 1920 p. 56.

The facts relating to the labour supply in Bombay have already been dealt with in Chapter IV. Attention has been drawn both to its heterogeneity and to the low proportion of women among the immigrants. The fact that so large a proportion of the total population of Bombay is made up of immigrants from all parts of India accounts very largely for the instability of the labour force in that city. The labour-problem is therefore an extraordinarily difficult one in Bombay. Among the total employees engaged in industrial establishments 84.5 per cent are men, 14.2 per cent women and 1.3 per cent children.¹ The women and children are to be found chiefly in the textile factories where the proportion between males and females is as 77:23.²

In the spinning and weaving mills the men do the actual spinning and weaving. The women are employed in the reeling

Description of work in textile factories and winding departments as piecers or followers in ring spinning and as doffers Children, boys and girls are employed chiefly as doffers in the roving and spinning

departments. There can be no doubt as to the strenuous nature of the work done by the men. Though the spinning machines are similar to those in England and the weaving machines are like those run by women in England yet the temperature and the state of humidity of the atmosphere render both spinning and weaving much more exhausting than in England. The work of reeling in which the majority of women are employed is from a physical point of view not of an exhausting nature. It consists in winding the yarn round a frame which is worked either by power or by hand. The yarn is then tied up into bundles. The reeling department is generally at some distance from the din of the machinery. There is no excessive noise in the department itself and no artificial means for humidifying the air have to be adopted. The winding department, where the yarn is wound on to drum, cheese or pirn winders is very different and the conditions are much more exhausting. So also in the ring-spinning the women have to work in among the machines and consequently the work causes greater

1 Census of India 1921 Vol VIII Bombay Presidency Part II Table XXII Part IV page 404.

2 Op. cit. Table XXII Part I page 365.

fatigue. The half-timers who are employed in the roving and spinning departments are subjected to the noise and rattle of the machinery and though they have frequent pauses in which to rest they have to be very quick at doffing, or removing the bobbins from the machines.

In the textile industry in Bombay the hours of work were limited to 12 a day for men, 11 for women and 6 for children by

Hours of Work Act XII of 1911. The new Act of 1922 has made no changes as far as the daily hours for women and children are concerned, but has

limited the hours of men to 11 and the total weekly hours of adults to 60 in the week. The legal limit exceeds the hours now generally worked in Bombay. After the mill strike in 1920, millowners reduced the hours of work for adults to 10 and of children to 5. The men generally start work at 7 a m and end at 6 p. m. with an hour's break from 12 to 1. In some mills women are allowed to start at 8 a m and to end at 5-30 p. m. They also have the break from 12 to 1. The half-timers work in two shifts, from 7 a m. to 12 noon and from 1 to 6 p. m.

Though this limitation of hours of work imposed by the Act of 1922 has not made much difference so far as textile mills in Bombay are concerned, there can be no doubt that the general effect will be beneficial. Before its passage the hours of work for men in factories other than textiles were unlimited and it was largely in the smaller factories that abuses took place. Further the extended definition of the term 'factory' in the new Act will bring a still larger number of factories within the scope of this limitation of hours.

Wages Accurate information with regard to wages in India can only be obtained with difficulty as the Government of India has as yet passed no Act for the compulsory collection of such data. A beginning, however, has been made by voluntary methods in Bombay.

The Director of the Labour Office in that province succeeded in obtaining from the majority of cotton mill owners in Bombay, Ahmedabad and Sholapur a return of the wages paid in May 1914 and May 1921. He has published the results.¹ According to the

¹ Wages and Hours of Labour. Cotton Mill Industry by G. Findlay Shirras.

figures collected in that report the average daily earnings of men in the cotton industry in Bombay are Rs 1-5-6, and of women 0-10-9, while children (half-timers) earned between four and nine annas. The wages earned in Ahmedabad were only slightly less (by 6 pies) in the case of men, but were actually higher in the case of women, being 0-12-1. In Sholapur the wages in all cases were less: the average earnings of men were 0-15-11, of women 0-6-9 and of children in the majority of cases less than four annas.¹

The wages in the textile industry may be taken as representative of the highest wages paid in industry, in India. They are considerably higher than wages in agriculture, but it is very hard to ascertain what wages are actually earned. Mr. Findlay Shirras gives the *daily* wages, but time-keeping is proverbially bad and considering the strenuous nature of the work it is easy to understand why this is the case. This being so it would be useful to know what the *actual* monthly earnings are or the average amount of time lost each month by men, women and children. It would then probably be found that a woman has to subsist on considerably less than 0-10-9 a day. Further the mill-managers claim the right to fine the workers very heavily. The wages paid therefore are often less than the wages earned. Another fact which also lessens very considerably the real wages is the common practice of paying the wages earned in one month in the middle of the succeeding month. The workers, not being capitalists, have to borrow money at very high rates of interest till they receive their pay. In many instances they do not succeed in clearing themselves of the debt first incurred in taking up factory-work.

In Bombay, women and children are mainly employed in cotton ginning and spinning mills. The other avenues of employment account for only a very small proportion of the total. The numbers employed have risen considerably within recent times. The Reports of Factory Inspectors give the total number of women and children employed in Bombay and outside, Bombay in the Presidency. The figures for 1915 as compared with 1921 will give some indication of this increase:—

¹ Wages and Hours of Labour. Cotton Mill Industry by G. Findlay Shirras, pages 10 & 11.

Year	WOMEN			CHILDREN		
	Bombay	Mofussil	Total	Bombay	Mofussil	Total
1915 ¹	23,189	29,921	53,110	5,306	11,328	16,634
1921 ²	31,571	34,655	66,226	2,664	13,102	15,766

It is satisfactory to note that the employment of children in Bombay has been reduced so considerably, but the same tendency has not been at work in the mofussil. Even taking into consideration the low wages earned by children the economic utility of their labour cannot be very high.

There are many obvious drawbacks attaching to the employment of women and children in factories. The first drawback is the deleterious effect it has on family life. A woman who is away at work nearly as long as her husband is too fatigued to do the household duties of cooking and looking after the children which still devolve on her. Secondly her physique is, in the generality of cases, not as good as that of a man and consequently she is less fit to stand the wear and tear of factory life. Further, while men can have the benefit of the medical advice of the doctor in charge of the dispensary, Indian women do not readily avail themselves of such aid, as time-honoured custom prevents them from doing so. Only in exceptional mills is a woman doctor available for the women. The employment of children is attended with even greater disadvantages. These children, both boys and girls, are future citizens, but at a time when they might have been receiving education or might at least have been spending their time in the open air doing agricultural work, they are cooped up in noisy and ill-ventilated factories. The conditions are not conducive to health or development either mental or physical. Nominally a child is not supposed to work in a textile factory for more than 6 hours a day, but apparently in so important an industrial centre as Ahmedabad this law is honoured.

¹ Annual Factory Report of the Presidency of Bombay 1919 page 5

² Annual Factory Report of the Presidency of Bombay 1921 page 4.

in the breach rather than the observance. In Bombay where there has been for many years a whole-time certifying surgeon it was found that of the total number presented for certification no less than 47·4 per cent were found to have been previously certified.¹ Further, of the total number presented only 13·6 per cent received certificates as half timers. The employment of children in factories is unfortunately very liable to abuse. Every step should therefore be taken to make it difficult and unprofitable to employ them in contravention of the provisions of the Act. The fines that are levied for breaches of law should be heavy enough to act as a deterrent, but in point of fact, as the appended table shews, fines are in many cases very small. It is true that in 1919 "four prosecutions were taken up in Ahmedabad for sweating children or working them under-age and fines ranging from Rs 500 to Rs. 3000 were imposed on the managing agents", but in 1920 the maximum fine was only Rs 150, and in 1921 the general average was much lower than in 1919.

¹ Annual Factory Report Bombay 1921 page 1.

Year	Number of Prosecutions		Number of Convictions		Fines	
	By full time Inspector	By additional Inspector	By full time Inspector	By additional Inspector	By full time Inspector	By additional Inspector
1917 ²				52		
1918 ³				46		
1919 ²	17	5	17	4	Ranging from Rs. 500 to Rs. 3600.	*
1920 ³	4	15	4	13	Rs. 10 to Rs. 150.	Rs. 10 to Rs. 75
1921 ⁴	7	6	4	6	Rs. 25 to Rs. 1800.	Rs. 10 to Rs. 90

² Annual Factory Report, Bombay 1919 page 5 and Statement No. VI page XVI

³ Annual Factory Report, Bombay 1920 page 7.

⁴ Annual Factory Report, Bombay 1921 page 7.

Apart from the children who are actually employed many are taken to the factories by their mothers, as they are too small to be

**Presence of
small children
in factories** left at home and need to be fed from time to time. These children are in great danger from the machinery but till the passage of

Act II of 1922 the Inspector did not have the power to exclude them (section 1 A). He can now do so if, in his opinion, their presence in the factory or in any part thereof involves danger or injury to their health. The only solution lies in the provision of crèches for such children, but up-to-date there are only three crèches attached to Bombay mills. Such places need to be in charge of trained attendants who would know when to isolate cases, but Dr. Barnes, in her enquiry, found that there was a trained attendant in only one case.

In very few mills in Bombay are suitable arrangements made for the meals of the workers. If the weather permits, they eat what

**Arrangements
for meals** they have brought with them in the factory yards; if not, they eat their food inside the machine sheds. In the course of her enquiry Dr. Barnes found that where cooking houses were attached to mills they were well patronised by the men, though the women did not use them. Caste prejudices make the provision of canteens very difficult. In other parts of India, such as Nagpur and Madras, sheds are erected in which the men of the different castes congregate during the midday interval. Some such provision might well be made in Bombay.

(ii) BENGAL

The industrial life of Bengal mainly centres round Calcutta, the adjacent districts of Hooghly and Howrah, and the banks of the river Hooghly in the district of the 24-Parganas. In describing factory conditions much would be omitted if only Calcutta were described. This entire area will therefore be included in this chapter and the extent of the principal industries will first be recapitulated. Next the sanitary conditions in these areas will be dealt with and finally the general features of factory life such as the hours of work, method of payment of wages, and the composition of the labour force will be examined.

The total number employed in factories in Bengal in 1921 was 465412 persons.¹ Of these more than half (237,731 or 51 per cent) are employed in the district of 24-Parganas; the district of Howrah comes next and gives employment to about 22 per cent (103,532) while Hooghly accounts for approximately 12 per cent (55,675). In Calcutta there are only 17,175 employed in factories or about 3·4 per cent. It will be seen accordingly that the area which has been selected as representative of the industrial conditions in the province gives employment to more than 88 per cent of the total number employed in factories. The Census figures for 1921, which are just to hand, indicate that the total number of persons in "industrial establishments" in Bengal in that year were 757,041². This large difference from the number of factory workers arises from the fact that the latter excluded all establishments employing less than 20 persons and also those not worked by power.

The principal industries of Bengal have been given in detail in Chapter IV. It will suffice here to recapitulate the main points.

Principal industries Jute is the industry of pre-eminent importance. The jute mills and presses together give employment to no less than 305,674³ persons (approximately 65 per cent of the total number of factory workers). Unlike Bombay, cotton spinning and weaving is comparatively unimportant as only 12,838 are employed in that industry. Both these industries are carried on entirely in Hooghly, Howrah and the 24-Parganas. In Calcutta itself the principal factory industries are printing, general engineering, coach-building and motor-car repairing. There are also flour mills, rice mills and oil mills but in none of these are as many as 1,000 persons employed in any one establishment. Besides the jute industry, general engineering is the only industry of any importance in the Hooghly district. In Howrah, on the other hand, there are large ship-building and engineering as well as general engineering

¹ Annual Report on the Working of the Indian Factories Act in Bengal and Assam 1921. Statement II pages XIV and XV.

² Census of India 1921 Bengal Vol. V part II Industrial Statistics Table XXII part I.

³ Annual Report on the Working of the Indian Factories Act in Bengal and Assam 1921. Statement II. page X *et seq.*

workshops together giving employment to over 16,000 persons. Another 11,000 are employed in the dockyards and railway workshops. The jute industry in the 24-Parganas accounts for nearly three-fourths of all employees in this district. The remainder are engaged in all kinds of industries of which railway workshops, general engineering, cotton factories, kerosine tinning and packing, rice mills, oil mills and paper mills are among the most important.

Turning to Calcutta proper the Census report¹ states that the first regular census was taken in 1872 when the population numbered 633,009. At the time of the next

**Population of
Calcutta**

Census in 1881 no appreciable change had taken place, but the number increased by 11.4 per cent in 1891. The increase of 24.3 per cent in 1901 is attributed in part to improved enumeration. The total population in Calcutta at the time of the Census of 1911 was 896,067² persons ; of these 607,674 were males³. In other words, nearly 68 per cent belonged to the male sex. This great disparity between the sexes is even more serious than it appears if the ages of the respective populations are examined⁴. According to the data given in the Municipal Administration Report for 1920-21, nearly 50 per cent of the male population fall between the ages of 20 and 40 whilst in the case of the women only about one-third do so. Further, the proportion of old women and children amongst the female population is practically double that amongst the males, owing no doubt to the large proportion of comparatively young men who come to Calcutta without their families. Besides this disparity in the ages and sexes of the population in Calcutta another disquieting feature is the large number of residents who were born outside the district containing the city. Of these immigrants the great majority at the time of the 1911 Census came from outside the province, 204,000 from Bihar and Orissa and 90,000 from the United Provinces. Amongst the immigrants males preponderate largely ; in the town as a whole there were in 1911 twice as many

1 Census of India 1911 Vol. I. India Part I, Report page 43.

2 Census of India 1911 Vol. V. Bengal, Bihar and Orissa and Sikkim, Part I, page 30.

3 Report on Municipal Administration of Calcutta, 1920-21 Vol. I. page 67.

4 Op. cit. pages 66 and 67.

men as women and the disproportion was said to be steadily increasing¹

The latest report² regarding the sanitary conditions of Calcutta depicts indeed a gloomy picture. The average death rate was

39.3 per thousand for 1920. The different

**Health
conditions
(a) Calcutta**

wards of the city contribute in various degrees to this result Thus Ward XXIV

has the unenviable position of heading the list, the rate being 76.8 per mille³. In comparison with other wards it has a higher birth rate 21.8, but its infantile mortality rate is also higher being 582. The question of the mortality among females is important. The report cited brings out some important facts in connection therewith. In the first place while the rate of female mortality is over 50 per thousand, it is 33.8 amongst males⁴. This is accounted for in part by the larger proportion of very old and very young among the female population, but even after admitting this the fact remains that the death rate amongst females between the ages of 15 and 40 is very much higher than amongst males at these age-periods. The writer of the report points out that these age-periods correspond "to the child-bearing ages when women are subjected to the diseases and accidents of pregnancy and child-birth," but in his opinion "these diseases account for a comparatively small proportion of the excessive mortality amongst females." This opinion is based on the fact that the deaths recorded as due to such causes only amounted to 1.3 per thousand.⁵ Registration of the causes of death is, however, far from exact and it is possible that the correct cause has not always been recorded. There can be no doubt, as the report points out, that the *gurdah* system is largely accountable for this high death rate. To secure privacy in a congested city, light and air have to be shut out and the women consequently live in the darkest and worst ventilated rooms. The high death rate amongst females from such causes as tuberculosis and respiratory diseases in comparison with males is further proof of

1 Census of India 1911 Vol. I, India, Part 1, Report page 43.

2 Report of Municipal Administration of Calcutta 1920-21.

3 Op. cit. page 64, and page 68.

4 " " 66, " 67.

5 Op. cit. page 67.

the evil effects on health of the *purdah* system, (see page 68 of report)

Turning next to Howrah, which is practically a part of Calcutta, the effects of the industrialisation of an area which

(b) **Howrah** cannot expand to meet growing needs are exemplified. In 1911 the number of persons

per square mile was 20,985. Since that date the number of persons industrially employed in that area has increased enormously. In the Census Report in Bengal for 1911¹, Mr. O'Malley gives an interesting account of the growth of this town. Originally it was merely a small collection of villages surrounded by jungle and extraordinarily unhealthy. After 1850 it began to expand rapidly. The East Indian Railway made it its terminus, the docks increased in size and number and all kinds of factories, especially jute mills and presses, sprang up. In 1893 its sanitary condition was declared to be deplorable, but since then steps have been taken to remedy some of the defects. Its total population in 1911 was 179,006, but as the industrial population of that area in 1921² amounted to 103,532³ there must have been a considerable increase in population and consequently in overcrowding. At the time of the Census³ less than one-quarter of the population were found to have been born in Howrah itself. About 20 per cent had come from Bihar and Orissa and about the same from the United Provinces. In addition to this mixture of castes and races or rather because of the long distance that the emigrants had come there was a corresponding disparity between the sexes, the rate being 64 to 36.

The towns situated on the banks of the Hooghly in the district of 24-Parganas owe in many cases their rapid rise and

(c) **24-Parganas** development to the expansion of the jute trade. Just as in the case of Howrah so in this district also villages have been transformed into industrial centres. Titagarh is one of these towns. On visiting it one is struck by the large number of extensive mills built in a comparatively small area. But while the mills have in most cases spacious compounds the majority of the workers live huddled

1 Census of India, 1911, Vol V, Bengal Part I Report page 31

2 Annual Factory Report on Bengal 1921, Statement III.

3 Census of India 1911, Vol V Bengal part II, Table XI Birthplace B-Cities page 138.

up in a densely crowded village. The mill-owners have, it is true, built houses for some of their workmen but the supply is insufficient for the numbers employed. The subject of housing of jute-mill operatives is further dealt with below.

This brief sketch of the conditions of life in the great industrial area of Bengal emphasizes some of the difficulties and drawbacks with which labour is faced when it

**Conditions in
Jute Mills**

comes to take up factory employment. On the other hand, the working conditions inside the actual factory premises in the jute industry present a pleasing contrast to the living conditions outside the factories which have been described above. The workers have, at any rate, on the whole a healthy environment in which to work. The mills, unlike those in Bombay, are built only one storey high. Ventilation and lighting can therefore be more easily arranged. These are not always entirely satisfactory, but are a very great improvement on what one finds in Bombay. The jute mills are generally situated in large spaces of open ground. A good drinking water-supply is provided and the sanitary septic tanks that have been installed have been found to be satisfactory. Most of these mills have dispensaries attached. The doctor-in-charge of the dispensary is however not always a highly qualified man and it would be better if arrangements were made for skilled supervision. The whole-time certifying surgeon for Barrackpore offered to do this,¹ but his offer has apparently not been accepted as yet.² The needs of the women are not sufficiently considered. There are frequently no separate rooms for them to go into when ill or suffering from an accident; the appointment of women medical officers in charge of dispensaries is extremely desirable.

The heterogeneous nature of the labour force in a jute mill has already been described in Chapter IV where attention was also drawn to the interesting table given in the Census Report shewing the various castes among jute mill employees. Many of them work in Howrah and it has already been shewn that that population is largely made up of migrants from Bihar and Orissa and

¹ Report on the working of the Indian Factories Act in Bengal, Bihar and Orissa and Assam for 1920 page 6.

² Do. for 1921 page 5.

the United Provinces. Originally Bengal supplied its own labour for the jute mills, but during an inquiry in 1906¹ it was found that while this was the case in a few mills in others only a small proportion of the workers were Bengalis and the remainder were Hindus and Musalmans from the United Provinces and Bihar and Orissa. As has already been pointed out in Chapter IV, where conditions are good, the Bengalis are not averse to factory labour, but they are unwilling to leave their fields and cottage homes to live in crowded bastes where privacy for their women-folk cannot be secured.

The textile industries, jute and cotton, provide employment for over 60 per cent. of the total employees, by far the largest

Nature of work in jute mills proportion being found in the jute mills. In a jute mill the proportion between men, women and children among 100 employees is approximately 73.5, 15.8 and 10.7 respectively. In cotton mills a slightly larger proportion of children and a smaller proportion of women are employed. Women and children are to be found in practically all the departments of a jute mill with the exception of the weaving. As soon as the jute comes into a mill it has to be sorted. The women, working under *Sirdars*,² open up the bales and select out of them the better qualities of jute for the Hessian weaving and lay aside the other for the coarser sacking. The next process is known as jute softening. Men feeders place the jute on the machine and the women act as jute receivers. Next the jute has to be cut. This operation is done entirely by men. The cut-jute is then passed through the 'breaker cards.' Here women both feed the machine as well as do the receiving. The next operation known as 'drawing' is also done by the women, but in the roving which comes next the women feed the machine and the men do the roving. In the spinning department men and boys are employed but boys and girls change the bobbins and are extraordinarily deft at this operation. In the warp spool winding equal numbers of men and women are employed, but in the waft cop winding all the employees are men as the work is considered to be heavy. This is also

1 Report on the supply of labour in the United Provinces and in Bengal, by S. H. Fremantle, I. C. S., p 34, dated 1906.

2 Head contracting foremen.

----- Interval
----- Hours of work.

the case in the next operation known as beaming when the yarn is starched. Weaving is entirely done by men. In the finishing department men work the calender machines and also pack the bales. They are also exclusively employed on the machines for sewing sacks. In the hand-sewing department whole families work together, men, women and children being employed. These are the main operations observed in visiting an up-to-date jute mill.

Passing reference has already been made to the shift system prevalent in the jute mills and to the disintegrating effect that

this complicated system of shifts must inevitably have on family life.

Hours of work The men worked principally on one shift for about 11½ hours a day with an hour and a half interval except those employed in the calendering department who worked from 8 to 9½ hours a day. The women, on the other hand, were divided into three shifts and the children into six. The method on which these shifts were arranged is given on the opposite page. The women on the shifts A and B worked for 9½ hours a day and those on C for 9 hours. The children all worked 6 hours and with the exception of the shifts H and J had a rest interval varying in duration from one hour to eight. These hours and shifts obtained prior to the passage of Act II of 1922. Some alterations have been made to bring them into conformity with the new Act, but it would be much better if the system could be abolished and a ten hour day instituted for the men and women and a five hour shift for the children for not only are these shifts bad from the point of view of family life, they are bad from the point of view of inspection. It is almost impossible for an inspector to satisfy himself that the rest intervals have been given to the children or that each child is working on his own shift and is not being worked excessive hours. Thus there is the obvious danger that children employed on D shift could utilize their long rest interval of 8 hours by working in another mill.

No accurate statistics are yet available with regard to the wages paid in the jute mills. Generally speaking it appears

Wages and methods of payment that women on an average, working a full week of 9 hours a day for 6 days earn between Rs. 2 and Rs. 3. Men's average

wages vary between Rs. 5 and Rs. 8 for 11½ hours a day for 6 days

in the week. A wages statement is included each year in the Report of the Inspector of Factories. It is however very vague and general but serves to give some indication with regard to average wages paid in the jute industry. Though the wages on the whole are lower in the jute mills than in the Bombay cotton mills the operatives have one distinct advantage. They do not have to wait more than a month for payment. Wages are paid weekly, one week in arrears. Further the cost of living is very much less than it is in Bombay.

Just as in the case of the cotton mills in Bombay, the jute mills in Bengal have within recent years been making large profits. In the issue of CAPITAL of 25th January 1923 a statement of dividends paid in all important cotton and jute mills from 1913-1922 will be found.

Women form approximately 16 per cent and children 10.5 per cent of the total labour force in a jute mill¹. The numbers of women

Employment of women and children and children employed increase steadily each year. The large number of children who are certified each year (see Table)² is an indication either that some succeed in obtaining two certificates or that there is a large labour turn over among the children or that mills employ large numbers of boys and girls who are just over 14. Probably all three factors are at work. That prior to the passage of the Act of 1922, large numbers of comparatively young persons were employed is shewn by the following statement relating to a large jute mill in July 1921:—

Men over 21	Men under 21	Women	BOYS			GIRLS		
			Between 9 & 11	Between 11 & 12	Between 12 & 14	Between 9 & 11	Between 11 & 12	Between 12 & 14
2638	1396	1301	206	192	95	134	74	19

¹ Annual Report of the working of the Factories Act in Bengal & Assam for 1921 Statement III page XVII.

2 Year	Number employed	Number of certificates issued
1918	33,510	21,414
1919	34,751	21,757
1920	34,960	25,081
1921	36,286	24,275

Some of the obvious drawbacks to the employment of women and children in factories are dealt with in the section of this chapter dealing with Bombay. Their employment in jute mills is in some ways preferable to their employment in cotton mills, as working conditions are on the whole more healthy in the jute mills and the atmosphere has not to be in as humid a state. On the other hand, as women and children in the jute mills work in nearer contact with the machinery than in cotton mills, there appears to be greater danger from accidents. Owing to the fact that a large proportion of the women who are employed in factories are married, they are compelled in many instances to bring their babies to work with them. As no provision is made for the accommodation of such children the mothers have to take them into the factories, a practice which is not only deleterious to their health, but also renders them liable to grave accidents.¹ The number of small children who are injured yearly is given in the Factory Inspector's reports for Bengal, but as no reference is made in the Bombay reports to similar accidents definite comparisons cannot be made. Act II of 1922 will now enable inspectors to prohibit the admission of young children into parts of factories where there is a possibility of accidents. When this is done managers will be faced with the necessity of providing crèches.

Dispensaries are attached to most mills and are generally under the charge of a man with some medical qualification though not

Medical aid necessarily of a very high order. Besides deal-

ing with accidents the dispensary is used as a general consulting room by those who are sick. Women, however, make little use of the facilities thus offered as it is generally opposed to their ideas to discuss the state of their health with a man.

In the mills there are as a rule no arrangements for meals. The workers have to arrange as best they can unless the

Arrangements for meals rest interval is sufficiently long to enable

them to get home and back in time. Where the *bustee* or workers' houses are close to the mill the interval of an hour and a half which is allowed to the men is sufficiently long to render this possible. The women on A and B shift would be able to get home to meals. The women on C

¹ Annual Report on the working of the Indian Factories in Bengal and Assam Act for 1921 page 7.

shift would have had their meal before starting work and would not eat again till after their work was complete. The children too could on most shifts get home. But the intervals for the different shifts were at such different hours of the day that in the great majority of cases the different workers in the same family could have eaten only their evening meal together. Sheds outside the factory where meals could be brought and eaten would undoubtedly be much appreciated.

The Management of the Jute Mills near Calcutta have for some time past realized that in order to secure a stable and

Housing in the Jute Mills contented labour force, it is worth while devoting time and attention to the question of housing. The fact that the Jute mills

have to depend to a very large extent on imported labour has also contributed to the development of housing schemes. The mills are situated in a semi-rural area round Calcutta and unless housing is provided by the mills the workers have to fall back upon the very unsatisfactory accommodation available in the hastily-constructed *bazaars* or *bustees* round the mills. It is believed that about one-third of the total number of jute mill workers live in quarters provided by the mill-management. I have not been able to obtain reliable statistics on this point. Some of the quarters which were built in the early days of the industry are not very up-to-date with regard to ventilation. The newer dwellings are however built on comparatively modern lines. The arrangements for sanitation and the supply of water for drinking and bathing are as a rule satisfactory. It is believed that the mill authorities would be willing to develop their housing schemes very considerably, but they are at present very much hampered by the difficulty of securing land in the vicinity of the mills. Compulsory acquisition cannot be resorted to under the present law and the owners of suitable land often ask prohibitive prices. There are also frequently difficulties with regard to the title to the land in the case of Hindu joint-family or Musalman owners. It is to be hoped that the attention of the Legislature will be drawn to this important matter.

OTHER INDUSTRIAL CENTRES

The other industrial centres in India need not be dealt with at the same length as Calcutta and Bombay. No doubt factory

conditions differ in each industrial centre but the general features remain the same Cawnpore, Nagpur and Madras do however present certain features which are, in some cases, a distinct improvement on those found elsewhere They are therefore worthy of record. In the case of Cawnpore the arrangements made for housing the labour and the provision of welfare superintendents will be described. In Nagpur the facilities provided for safeguarding the health of the workers and the various kinds of benefits in force for maternity, sickness and accident will be mentioned. Madras is in a particularly fortunate position in having a fairly stable labour force, and the educational facilities that are provided in that centre are generally better than in other parts.

CAWNPORE

Cawnpore is an important industrial centre ; the industries carried on in that city have already been described in detail

Housing of Factory labour Here I propose only to describe the housing that has been provided for the employees of Messrs Cooper Allen and Company and for the workers at the woollen mills. Both these firms now form part of the British India corporation, but these settlements were built before the amalgamation took place. The one is known as Allenganj and the other as McRobertganj In the latter case especially the lay out and the arrangements for living are particularly good. The houses are all grouped round central courtyards ; each house has in addition a little courtyard of its own at the back. The houses have one, two or three rooms according to the needs of the families that occupy them. The rents charges are merely nominal being 10 to 11 annas per month for single quarters, and rupees 1/10 to 1/12 for double quarters. The lanes between the houses are rendered shady and attractive by the trees that have been planted. A large playground has been provided for the workers. In addition there is a school and a dispensary and arrangements have been made for the provision of midwives

The two settlements are under the management of a welfare superintendent who has undoubtedly done much to bring about a

Welfare Superintendent sense of corporate life. He has arranged for all matters connected with the settlement to come up for discussion before a Committee known by the name of Panchayat consisting of a Brahmin, a

Mahomedan, a Chamar and other representatives of the community. He also holds weekly lectures illustrated by lantern slides. His wife is an invaluable helper and goes to see the wives of the men who work in the factories, in their homes in the settlement. Together these settlements house about 75 per cent of the labour belonging to the factories to which they are attached.

NAGPUR

At the Empress Mills Nagpur the management have provided two dispensaries for their workers, one for men and one for women.

Medical arrangements A woman doctor as well as a medical man is in charge of the general health of the employees. The women and children are treated by the woman doctor in case of accident or if they are ill. She is also responsible for granting the maternity certificate to a woman who then becomes entitled to leave of absence and two months pay. When asked to do so she arranges for the woman to be attended at her confinement by the nurses who work under her. The doctor has also arranged a crèche where the small babies are kept and well looked after. Those who have suffered accidents, whether men or women, are allowed half wages when absent on account of injuries. Employees who have sustained serious injuries are, if they return to work, given light work. If an accident results in death, compensation is given to the heirs of the deceased.

At meal times the workers can go into the sheds which have been erected round the works. The workers have arranged among themselves regarding the sheds that may be utilised for the different castes. These sheds are much appreciated. In the heat of the day or in the monsoon it is very inconvenient to have to choose between having one's meals in the workroom or in the yards. These sheds, erected at comparatively small cost, provide the necessary facilities required by the workers. Filtered water is provided and separate taps are set aside for the different castes.

MADRAS

Madras does not rank as an important industrial centre and in comparison with Calcutta and Bombay is comparatively small.

**Composition of
above force**

The total number of its inhabitants at the 1921 Census was 526,911.¹ The labour population in Madras also presents many points of contrast to that in Bombay. In the first place no less than 95 per cent of the total inhabitants of Madras city were born in the province itself and of these two thirds were born in Madras itself; and the bulk of the remaining population come from adjacent districts such as Chingleput and North and South Arcot. Further, the proportion between the sexes is fairly equal, 52.5 per cent being males. Unlike Bombay the factories in Madras should therefore be able to maintain a fairly stable labour force as the majority of the workers are resident in Madras. Further there are not nearly so many industries competing for labour. Consequently men know that it will not be easy to get employment elsewhere if they lightly throw up work they have undertaken.

In Madras city comparatively very few women are employed in the cotton spinning and weaving mills, the proportions being

**Employment of
women and
children**

approximately 81 per cent men, 14 per cent children (nearly all being boys) and only 5 per cent women.² These proportions do not however hold good for the rest of the

Presidency where the proportions are roughly men 65, women 14 and children 21. The large proportion of men employed in Madras city is due to the fact that the mills under European management there have realized that it is economic to employ the best available machinery. Men are employed on these machines and though their wages are higher the output of these machines makes up for the difference between their wages and those of women. Thus, work which is elsewhere done by women by hand is in the Madras mills entirely done by power by men. A new type of labour-saving machine prevents broken threads from being wound on the spindles and so saves much time. The operators in still other departments have been provided with instruments which have enabled them to increase their wages by 15 per cent. New machinery has also been introduced, which does work automatically which formerly had to be done by hand.

¹ Census of India 1921 Vol. XIII Madras Part II Table III page 6

² See Annual Report of Inspector of Factories, 1920 Madras, Appendix IV page 12.

New designs have still to be done on the drawing-in frames by hand, but here again up-to date machinery is likely to replace this process. In the weaving shed some automatic looms have been introduced. One man can look after six of these whereas on the ordinary looms there is a man in charge of each. The men work 10 hours a day and earn good wages.

Taking the above facts into consideration one can understand both why educational facilities have been provided by the management of these mills and why the men and

Educational facilities

boys are in a position to benefit thereby.

Schools were started for the male children of mill-employees as early as the year 1904. The classes were first held in the mill-shed, but as the factory inspector objected a small building was set aside as a school. In 1912 a large piece of adjacent marsh ground was taken over by the mill and very fine school buildings were erected, space being set aside for football and other games. At the same time two highly trained European ladies were appointed whose number has now been increased to four. Gradually a small technical department was introduced where the boys could learn carpentering, engineering and handloom weaving. They were also taught gardening. The pupils vary in age from 4 to 13 and recently a kindergarten branch has been opened with two women as teachers who have been specially trained. The bulk of the teaching is, however, done by ~~male~~ teachers. There is also a continuation school for the boys who are no longer half-timers and also for adults. The average attendance at the night school is about 300.

In addition to these schools the men employees have been given a large institute where they can have meals and can also read the papers. There is a games club in connection with the institute. An attempt to give cinema entertainments unfortunately proved a failure as people complained that the streets became very rowdy when the men came away from the entertainment and it had in consequence to be stopped.

Large sheds with corrugated iron roofs and stone floors have been provided for the workers at these mills who wish to take their

Other amenities provided by the mills

meals near the mills. The sheds have been partitioned into compartments to meet the requirements of men belonging to different castes. A certain number of houses have

been provided by the Firm for employees earning less than Rs 30 a month. Each house has a verandah, a front room and a back courtyard. In addition the Management have instituted a gratuity system which entitles a man who has stayed ten years with the Firm to a gratuity of 10 per cent on the total wages he has earned. A break in his service means loss of this gratuity unless the absence has been due to sickness. In the case of death the amount of money which has accumulated to the man's credit is given to whomsoever he has nominated. A compensation and sick benefit scheme has also been in operation for some considerable time. A worker who has a Doctor's certificate may remain away from work for 20 days in one year receiving half pay during that time. Absence due to an accident carries with it benefit of full pay and if the man is maimed he obtains light employment in the mill.

The choice of other forms of employment and the attractions thereof will now be briefly examined. The people in India are not

**Conditions in
organised
industries other
than factories** afraid of migrating so that many forms of occupation even in distant parts are open to them. For instance they seek em-

ployment in mines, in tea-plantations, on railway constructional work and in making canals. This does not mean that all these different forms of employment make an equal appeal to all castes. On the contrary certain castes are found to predominate not only in the jute mills of Bengal but also in the mines and tea-gardens of that province. Reference has already been made to the statistics collected in the 1921 Census which make it possible to see what castes are principally to be found in the different occupations. Thus in the coal mines¹ of Bengal among the unskilled workers the Santals account for over 38 per cent of the total unskilled labour and the Bauris for over 21 per cent while the Muhammadans and the Chamars each accounted for approximately 3 per cent. The skilled workers in the coal mines are only a small fraction of the total and amongst them the Bauris predominate and next come Santals and Muhammadans. At the 1921 Census the Bengal tea-gardens employed 215,611 persons.² More than one-quarter of this total consisted of Oraons and 9.3

¹ Census of India 1921 Bengal Vol V Part II Appendices to Table XXII, Parts IV and V and Appendices to these Tables and see also Table page 76 of this book.

² Op. cit Appendix to Table XXII, Part V, and see also Table page 76 of this book.

per cent were Mundas, while Santals accounted for a little over 4 per cent and the Muhammadans for a little over 2 per cent.

Generally speaking, it is the primitive aboriginal tribes who seek employment in mines and tea-gardens while factory employment attracts men principally from the agricultural and labouring castes. The reason is not far to seek. Work on tea-gardens is very similar to agricultural work while mining work can, by the simple expedient of staying away from work, be combined with agriculture. Further in the tea-gardens the labour force is made up of approximately an equal number of men, women and children. A family without many ties can easily migrate knowing that all the members will be able to get employment. Even in the case of colliery labour large numbers of women and children are employed (about 40 per cent of the total). Families therefore who are at a somewhat low level and who are accustomed to having their women and children working with them find that they can still continue to do so even though they go to tea-gardens or collieries. Another point that appeals especially to agriculturists is the fact that the hours of work are not fixed. It is true that in the tea-gardens there are busy seasons but this is also the case in agricultural work. On the whole, however, the work can be carried on in much the same manner as in any other agricultural pursuit.

Coal-mining is essentially different from agriculture. To work about 1,000 or 2,000 feet below the surface away from the

**Distinctive
conditions in
coal-mines**

light of the sun is not very attractive. Those who take up this form of employment in the majority of cases combine it with agricultural work. They come in for a certain number of days each month and spend the remainder, which is in many cases about half the month, in agricultural work. The reasons for this appear to me to be that coal-mining is largely looked upon as subsidiary to agriculture. The wages that are obtainable per day, *viz.*, eight annas to one rupee, are not very attractive when the nature of the work is taken into consideration. As a means of getting ready cash to help in time of agricultural need coal-mining is useful, but as a settled means of occupation it is not, on the whole, considered desirable. The average number of days worked varied from 9.8 to 17.9 in a month consisting of 24 days. In discussing the time-keeping in

coal mines, it should be borne in mind that life underground is not healthy. Shut away from sunlight and often exposed to much damp and wet, the miner naturally feels that, as a measure of self-protection, he must spend as large a part of his time above ground as possible. This should be recognized by mine owners. Where it is recognized and where plots of ground are given to the miners for purposes of cultivation it has been found possible to secure a contented, permanent and healthy labour force. Where it is not done, there is constant change, men seeking employment only for short periods and returning to cultivate their own lands as soon as they have earned sufficient to enable them to do so. Arrangements should gradually be made to allow certain definite periods off for agricultural operations, some employees being granted leave at the beginning and some at the end of the week. The figures shew that on an average only from 30 to 50 per cent are present in the beginning of the week, while on an average about 75 per cent are present at the end. This suggestion, it is true, would entail having a much larger number of employees on the wages roll, but the increased output would compensate for the extra outlay. As matters stand at present mining operations are, on an average, conducted energetically for little more than half the month.

While labour is comparatively easy to obtain for jute mills much difficulty is experienced in getting a sufficient supply of

(1) **Housing arrangements in mines in (a) Bengal** labour for coal-mining. One of the reasons for this is that coal-mining makes an appeal to a comparatively small section of the population. The peculiar needs and habits

of the people require to be studied. Thus, while the Santals are skilled in building comfortable mud huts for themselves and their families, they are seldom given an opportunity of doing so. Men and women come to work as casual labourers in mines from villages within a radius of 8 to 10 miles of the colliery. The long distances that have, in consequence, to be traversed result in frequent absences, lack of energy while at work and in attempts to work a double shift before returning home. Where houses are provided they are often built in such a way that they lack both light and ventilation, and no arrangements are made for securing any privacy for the family. The consequence is that miners can be

induced to live in such houses only with difficulty. Where on the other hand, they are given materials with which to build their own houses and sufficient space is provided for courtyards one finds a very different state of affairs. Some model settlements do exist. In one which was entirely inhabited by Santals I found that an extraordinarily pleasant village had been established. Each family had a group of mud huts grouped round a central courtyard while ground at the back provided vegetables. There were fields all round the village which the inhabitants had the right to cultivate.

These views regarding the lack of the provision of suitable housing arrangements in the coal-fields in Bengal find their support

(b) In Bihar & Orissa

in the "Report of the Committee on the Housing of Labourers in Bihar and Orissa"¹ published in 1917. According to that report

numerous defects were only too obvious. Thus, the Committee found that sites had not been happily chosen, that hovels had been built which were not more than 5 ft. square and had walls only 3 or 4 ft. in height. Even where the rooms were larger, as in the case of the masonry dwellings, the Committee point out that no arrangements had been made for ventilation. They noted a general scarcity of doors and found that in very few cases were the floors impermeable or water-tight. Attention was also drawn to the entire lack of arrangements for the disposal of night soil.

Arrangements for housing their labour are being made in some mines in the Central Provinces. At one that was visited

(c) In the Central Provinces

it was found that the company were building some brick houses each containing one room size 10×15 , height 10 ft. with a verandah in front 5 ft deep. All the houses had tiled roof. A window had been provided in each room, but as it was sufficiently large for a man to get in the occupants had bricked up the window. Each house had one-third of an acre of ground. The houses are all in rows and roads were going to be laid out. In addition to these houses there were some temporary huts for workers who had come on contract for about 6 months. There were also some mud huts which the company found were in some cases preferred to the houses they had provided.

¹ Report of Committee regarding Housing of Labourers in Bihar and Orissa—1917, para 26 *et seq.*

A different scheme for the provision of houses was found at another mine. There the company instead of providing the houses, gave the contractor who provided the labour an anna per ton of ore per week, and from this amount he was supposed to provide the workers with houses. During one month he had received in this way no less than Rs 250. On an average he obtained not less than Rs. 200 a month for this purpose. For this he had provided mud huts with thatched roofs. The houses had in fact been built by the workers themselves, the material alone having been supplied by the contractor. He undoubtedly made a handsome profit on the transaction.

The instability of the labour force employed in the coal-fields makes the provision of medical aid seem at first sight a somewhat doubtful benefit as far as the employers are concerned. The need for such provision has been recognized by the establishment of

(2) Medical aid in the coal-fields Mines Boards of Health at Asansol and Jharia and by the enactment of the Bihar and Orissa Mining Settlement Act in 1920. The Chief Inspector of Mines in his annual report for 1921 gives details regarding the work of these Boards.¹ Though much is being done by these Boards to render the mining settlements as healthy as possible there still remains a great deal to be done with regard to looking after the health of individual employees. Further while it is true that a few trained midwives have been appointed no well-qualified medical woman appears yet to have been appointed. As more than half the employees in the coal-fields are women and children the employment of a woman doctor would undoubtedly be very beneficial.

* One cannot fail to be impressed by the absence of the amenities of life in the coal-fields. It is true that coal-owners have to contend with a constant shortage (3) Absence of Amenities of life in the coal-fields of labour and the fact that many of their employees spend a large proportion on drink, but it is probable that these difficulties could be overcome if a determined effort were made to study the needs of the workers. In one case where a labour superintendent had been appointed who was specially interested in the Santals one found a

¹ Report of the Chief Inspector of Mines in India—1921 p. 18 *et seq.*

very happy state of affairs. The people were contented, the time-keeping and output were both good. To celebrate the arrival of a visitor to the village the men and women gave a display of dancing which was particularly interesting. The appointment of labour superintendents, both men and women, would help to make mining settlements very different from what they are at present. The Santals, who form a large proportion of the labour-force, undoubtedly repay study. A fascinating account of their habits and customs has recently been written by a Missionary of the United Free Church.¹

The Committee appointed to inquire into the housing conditions in the collieries² stated that amenities of life did not exist. They pointed out that the only pleasure available was that "purchased at the liquor shop" and that there was "no inducement for him (*i.e.* the miner) to remain at the colliery for a minute longer than he can help."

Before the mining population is in a position to appreciate the provision of much that is now generally regarded as among the necessities of life an extensive system of education would have to be taken in hand. Such a system must be adapted to their special needs and requirements and should not be of the generally stereotyped nature prevalent in many parts of India. Nor should it be confined to children only. Adults should be encouraged to take an interest in it by means of lantern slides. The wives might, at the same time, be educated through their homes and the interest they take in their children. Facilities might also be provided both for spending and saving money by means of co operative stores and savings banks.

Reference has been made to the tea-gardens in Bengal and Assam in Chapter IV. Detailed information is available with

**Conditions in the
tea-gardens
in Assam**

regard to the tea-gardens in Assam as a result of the Government inquiry.³ The Committee was appointed to inquire generally into the conditions of tea-garden labour in Assam and specifically into the question as to whether the remune-

1 The Story of the Santal : with an account of the Santal Rebellion, by James W. Macphail, M.A. M.D., United Free Church Mission, Bamdah.

2 Report of Committee regarding Housing of Labourers in Bihar and Orissa para 26, page 8.

3 Report of the Assam Labour Enquiry Committee 1921-22, published 1922.

ration paid was sufficient "to maintain the labourers in health and a reasonable degree of comfort." The report embodies much useful information. I do not, however, propose to deal with these aspects of the subject but shall confine myself to a brief account of the conditions of employment based on the results of the enquiry.

The provision of housing for the labour employed in the tea-gardens was at first compulsory by law (Act VI of 1901, sections

132-136), but even after the withdrawal of

(1) Housing the application of these provisions from the districts in question employers still find it

necessary to provide in some form for the housing of their labour which is recruited entirely from distant areas. The Committee found two different methods in force for supplying this need. In some cases the workers were housed in barrack lines and lived congregated together under more or less strict discipline and in other cases the workers were provided with land and building materials and built their own houses. The Committee found that most labourers, particularly those belonging to aboriginal or semi-aboriginal tribes, preferred to live in a manner as closely akin as possible to what they had been accustomed to in their own villages. I have already drawn attention to the fact that in the coal fields also aboriginal workers prefer to build their houses according to their own ideas with material supplied by the employer. The Assam Committee found that the labourer was much more contented on estates where he was provided with a small allotment for his own cultivation and with facilities for grazing his cattle and for cutting firewood.

Medical attendance is adequately provided for in the majority of the estates. The Indian medical staff on the whole consists of

qualified men but the success of their work

(2) Medical aid is naturally largely dependent on the personality of the doctor. In some estates

suitable and well-equipped hospitals have been provided, but there are instances where such accommodation is of a rudimentary type and "consists of temporary grass huts attached to a dispensary." No mention is made in the report whether any woman doctors are appointed to look after the women, nor whether any arrangements are made for the provision of trained midwives. The Committee however "noted with satisfaction the tendency towards increased

liberality in the granting of pregnant leave and allowances."¹ They found that certain estates gave leave for three months before and three months after childbirth with full pay for the whole period. The tea-gardens are faced with special medical problems, which arise from the congregation of large numbers in comparatively small areas. Hookworm disease and malaria are widely prevalent and epidemic diseases such as influenza take a heavy toll of life.

The need of providing some amenities of life is also emphasized. Where provision is made for recreation and where labourers are

(3) Amenities of given leave of absence to cut their crops and
life are not compelled to work on a holiday, the
labour force is reported to be more contented.

The suggestion is made that where there are opportunities for hunting and fishing these should be allowed and in cases where this form of recreation is not available, "football, cinematograph entertainments and sports would be suitable amusements on a holiday and would form a counter-attraction to the liquor-shop."²

With regard to the question of the adequacy of the remuneration received, the Committee found it difficult to give a definite

(4) Wages answer. They pointed out that it was necessary to take into consideration the other advantages offered such as "the possibility

of obtaining land for cultivation, the opportunities of other subsidiary means of livelihood, proximity to a bazaar, ample leisure, the healthiness of the locality and last and by no means least the personality of the manager."³ As these attendant advantages varied very much in the different estates no conclusions could be reached with regard to the problem of remuneration which were generally applicable. On the whole they state that wages have not kept pace with the rise in the cost of living and that that is especially the case in the Surma valley. They were satisfied however that, "speaking generally, the remuneration is adequate on gardens in the Assam valley." In the case of the Surma valley they endorse that finding subject to certain reservations.

1 Report of Assam Labour Enquiry Committee 1921-22, page 98.

2 Op. cit. page 100, para 197.

3 Op. cit. page 70, para 128.

Tea, coffee and rubber estates give employment to large numbers in the Madras Presidency. I did not visit these estates

**Tea, coffee and
rubber estates
in Madras** but was given the following information by a representative of these estates. He told me that the numbers employed were about 150,000 of whom about 62 per cent were men

and the remainder women and children. The hours of work of the estates were approximately from 8 a.m. to 4 p.m., but work was not compulsory on Sundays. The same hours were maintained all the year round, but in wet weather the employees were given jute blankets which were said to be water proof. In factories on the estates the hours were from 8 a.m. to 6 p.m. The tea factories were kept open all the year round, but the rubber factories did not work during March, April and May. About 17 per cent of the employees in tea-gardens are women, but no women are employed in rubber factories.

Schools are gradually being opened on the larger estates, but the language difficulty is a serious one in the smaller places as the coolies speak either Tamil, Canarese or Malayalam and it was not found possible to provide teachers in each language. The Tamil coolies are, however, said to be desirous of education and make their own arrangements for the education of their children.

Labour for the estates in Madras is recruited by means of head mistries who are sent round to the various villages. These mistries are also made responsible for the work done by the coolies and receive from the estate 10 per cent of the wages earned. According to the Labour Act estates are not allowed to make contracts for more than a year. The majority of the coolies are said to work for nine or ten months after which they return to their villages for two or three months. In a few cases they renew their contract without returning to their villages.

**Conditions in
other forms of
organized
industries** Labour is also largely employed in India on the construction and maintenance of railways, canals, roads and for extensive

public buildings. The work is generally given over to contractors who are entirely responsible for the labour as well as for getting the work done within a specified time. Government officials exercise supervisory powers but on the whole they do not interfere between the contractor and his

workers. He is responsible not only for the payment of their wages but also for the provision of housing and medical aid. Where the contractor succeeds in getting local labour the conditions are similar to those obtaining in other local industries. If, however, he has to bring his labour from some distance conditions are often far from satisfactory. The contractor is often obliged to give a monetary advance in order to induce the workers to leave their homes. To secure the return of this money and also to prevent the workers from absconding he protects himself under the Workmen's Breach of Contract Act. As the work is only temporary he does not see the necessity of making suitable housing arrangements. He contents himself with providing materials for building out of which the workers construct for themselves squalid hovels. Nor does sanitation receive much attention, arrangements for the provision of medical aid are scanty, unless an epidemic makes it an urgent necessity. In consequence of all these factors the efficiency of the labour force is seriously impaired. The workers are to be seen taking every opportunity of rest afforded by the lack of discipline which is so usual a feature of work of this kind.

This contract method of recruitment and management of labour which is so general a feature of the employment of labour in this country almost invariably brings in its train the evils noted above. They can only be overcome either by the method of direct dealing with labour or by seeing that strict conditions are laid down in the terms of the contract with regard to the provision of the amenities of life to the labour force employed on the work.

CHAPTER VI

AMELIORATIVE MEASURES

In previous chapters I have dealt with some of the problems connected with the rise and growth of factories in India. I have

Introductory attempted to shew how the problems vary from province to province. I have also endeavoured to describe the main difficulties that arise in the attempt to impose an advanced form of industrial organization on a people essentially rural in character and composed of many different heterogeneous elements. In this chapter I propose first to give a brief account of the course of labour legislation in India. Further as the State, employers, labour and social agencies are all concerned with these problems I shall give an account of the steps taken by each towards the amelioration of the condition of the working classes.

STATE ACTION

Factories in connection with the textile industries were among the first to be started in India. As in England so also in

Factory Legislati this country, the State at first did not recognize any duty towards the employees in such places. Abuses which had been prevalent in England at the initiation of the factory movement were repeated in India. Child labour was exploited and men and women were alike made to work excessively long hours. An excellent account written by B. L. Hutchins and A. Harrison¹ is available of the history of factory legislation in England. For India there exist two works which deal with the matter in a sufficiently exhaustive manner.² I do not therefore propose to refer more than briefly to the various Commissions that have been appointed whenever the question of the revision of the Factories Act arose, as these have been already dealt with by other

1 A History of Factory Legislation by B. L. Hutchins and A. Harrison. ✓

2 Indian Factory Law Administration by A. G. Clow. Factory Legislation in India by J. C. Kydd. ✓

writers. I shall content myself with examining the main questions round which the subject of legislation has centred and tracing the gradual evolution of the laws now in force. Finally some suggestions will be made as to possible legislation in the future.

The main problems with which legislators in India were at first faced related (1) to the restrictions that should be placed on the employment of women and children; (2) the extent of interference that is justifiable in the conditions of employment of adult labour and (3) the prescription of minimum standards for the health and safety of the operatives. The methods of enforcing the law have also been reviewed from time to time.

Till within recent times these were the principal subjects that came within the purview of legislation. The growth in the numbers employed, the necessity of bringing conditions up to the requirements of international standards, and the realization that the State owes special obligations to those who have to earn their living by manual toil and who because of their poverty and ignorance are themselves incapable of bringing effective pressure to bear on the Legislature, have all tended to widen very much the scope of legislation.

The First Indian Factories Act was passed in 1881 (Act XV of 1881). Pressure was brought to bear on the Secretary of State by questions asked in the House of Commons in 1874 and 1875 relating to the conditions in Indian factories and in consequence the Government of Bombay was directed to appoint a Commission¹ to inquire into the need of legislation. The Act of 1881 was an outcome of the recommendations of this Commission and the subsequent deliberations that took place. The Act fell short of the recommendations but was nevertheless a useful starting point. It dealt mainly with the problem of child labour. The employment of children was prohibited until they reached the age of seven years,² and until they were 12 years old³ they were not permitted to work for more

1 Bombay Factory Commission 1875.

² Indian Factories Act 1881, section 6.

than nine hours in any one day.¹ This in itself is a sufficient commentary on the state of affairs that prevailed before this Act was passed. Children were also to be given one hour's rest (exclusive of the nine hours work) and four holidays in the month.² There were no provisions in this Act regarding a weekly day of rest or the limitation of the hours of work for men and women. The act was made applicable throughout British India to factories³ wherein not less than one hundred persons were simultaneously employed and wherein power was used. Local Governments were given the right to appoint Inspectors of Factories and in default of such appointments the Magistrate of the district was to be the inspector in his district.⁴

The next Act relating to factories was passed in 1891 (Act of 1891). In the interval there had been much agitation for a revision of the

Factories Act XI of 1891. In the interval there had been much agitation for a revision of the Act of 1881. Mr. Meade King, one of His Majesty's Inspectors of Factories in England had been sent out in 1882 to report on the working of the Indian Factories Act. A Commission was appointed in 1884 by the Bombay Government,⁵ a small Medical Committee was also appointed at the same time to investigate the health of mill operatives and the Sanitary Commissioner was required to inquire into the sanitary conditions of mills and factories. The attention of the authorities was once again directed to the condition of factories in India by a Memorandum prepared by Mr Jones who had held the post of Inspector of Factories in Bombay for some considerable time. A Bill was prepared on the basis of some of these recommendations but in May 1890 the Home Government suggested the appointment of a further Commission before this Bill was passed. A small Commission was accordingly appointed by the Government of India in 1890.⁶

1 Indian Factories Act 1881, section 7.

2 do " do 8.

3 do do do 1 and 2.

4 do do section 3

5 Report and proceedings of the Commission appointed to consider the Working of Factories in the Bombay Presidency, 1885.

6 Indian Factory Commission of 1890 of which Major Lethbridge was the President.

As a result of these inquiries and also because of the resolutions passed at the Berlin Conference held in 1890, to which the British Government had signified their assent, the Indian Factories Act of 1891 came into being. This Act was a distinct advance on that of 1881. It was made applicable to all establishments using power where not less than 50 persons were employed¹ while local Governments had the authority to extend its provisions to places where not less than 20 persons were employed. Children were given a much ampler degree of protection. The age limits were raised to 9 and 14 respectively² and the hours of work were limited to 7 in any one day and had to be between the hours of 5 a.m. and 8 p.m.³ A rest interval of one half-hour's duration was also prescribed if the hours of work amounted to six. Restrictions were also placed on the employment of women. They were not to work in factories before 5 a.m. or after 8 p.m. except in places where a system of shifts had been approved by the Inspector.⁴ Their hours were limited to 11 in the day and they enjoyed an interval or intervals of rest amounting to at least $1\frac{1}{2}$ hours if the full 11 hours were worked. The hours of work for men were not limited but there had to be a stoppage of work for half an hour between 12 and 2⁵ and a weekly day of rest was also secured.⁶ Another feature of the Act was the introduction of provisions to secure ventilation and cleanliness and to prevent overcrowding in factories.⁷

Trade rivalry between the cotton and jute mills in India and those in Lancashire and Dundee was largely responsible for the appointment in 1906 of a Textile Factories Labour Committee⁸ under the Presidency of Commander Sir H. P. Freer-Smith. The recommendation by this Committee that the law relating to factories needed revision led to the appointment of a large representative Commission in 1909 to investigate conditions throughout India.⁹

1 Act XI of 1891 sections 3 and 18

2 Do do 5 and 9

3 Do section 7

4 Do do 6

5 Do do 5A

6 Do do 5B

7 Do do* 15

8 Textile Factories Labour Committee 1906.

9 Report of the Indian Factory Labour Commission 1908 under the presidency of the Hon'ble Mr. W. T. Morison, I.C.S.

The subsequent Factories Act of 1911 (Act XII of 1911) was largely based on Dr. T. M Nair's minute of dissent¹ to the Majority report of the 1908 Commission. He recommended the legislative restriction of the hours of adult labour. He also opposed very strongly the recommendation of the majority to create a class of 'young persons'. His arguments were sufficiently cogent to prevent the recognition of any such class by legislation. Other points on which he differed from the majority of his colleagues related to proposals to raise the hours of labour for women from 11 to 12 a day,² and to reduce the time allowed for rest. He also strongly objected to the proposal to permit night work for women in ginning factories and supplied many valid objections to the practice. But while he succeeded in enforcing his views on the legislature with regard to the 11 hours limit for women, he lost over the rest interval and the night work for women in ginning factories. Both these matters were however adjusted by the Act of 1922.

In brief the Act of 1911 left the age of employment of children unaltered, but made the possession of an age certificate compulsory.³ The duration of the hours of work for children also remained unchanged, except in textile factories where they were reduced to six hours a day.⁴ The new Act made no appreciable difference with regard to the conditions of the employment of women except that their rest interval was shortened.⁵ However for the first time the hours of adult male workers were restricted by law. But this was only done in the case of textile factories where no person was allowed to be employed for more than 12 hours in any one day.⁶ The provisions restricting the application of the Act to factories where 50 or more persons were employed and giving power to Local Governments to extend it to places where more than 20 persons were employed remained unaltered. The problems relating to health and safety were tackled in a much more thorough-going manner and the local Governments were given the power to prescribe definite standards in these matters.

¹ Report of the Indian Factory Labour Commission 1908 page 81.

² Do " do do 105.

³ Act XII of 1911 section 23

⁴ ; " " 32

⁵ " " 21

⁶ " " 28

The resolutions passed at the first meeting of the International Labour Conference under the League of Nations held at Washington in 1919 compelled once again a revision of the Factories Act. As India was a Member of the League of Nations and had participated in the Conference, she was called upon to ratify the Conventions and Recommendations passed at that Conference. In view of the stage of industrial progress reached and her peculiar position as a tropical country the case of India received special consideration. She was, however, asked to introduce a sixty hour week in factories and in mines ; to prohibit the employment of women at night , to raise the minimum age of employment to 12 and to enquire into the possibility of granting maternity benefits to women industrial workers.

The Act of 1922 (Act No. II of 1922) made it possible for India to ratify these Conventions as far as factories were concerned.

**Factories
Act of 1922**

The minimum age of employment was raised to 12 and the upward limit to 15¹. In no factories were they allowed to work more than 6 hours a day.² A rest interval had to be given after 4 hours work if the entire period of work was of 5½ hours duration³. The hours of adults were limited to 11 in any one day and to sixty in the week⁴ and a rest interval of one hour after six hours work was also prescribed⁵. Section 27 of the Act of 1911 which had allowed women to be worked at night in ginning factories was repealed. No woman now may be employed before 5-30 a. m. or after 7 p. m.⁶. Another important feature of the Act was its extensive range. It was made applicable to all power factories in which not less than 20 persons were employed. Local Governments were given the right to extend it to factories employing not less than ten persons whether power was used or not⁷. Further, local Governments were also given the power of fixing standards of ventilation and artificial humidification. In order to enable local Governments to do this

1 Act II of 1922, sections 2 and 14

2 " section 14

3 " " 12 "

4 " " 17

5 " " 12

6 Act XII of 1911 section 24 as modified

satisfactorily, the Government of India appointed an expert to suggest suitable means of regulating atmospheric conditions without detriment to the industry. His report, which has recently been published,¹ contains recommendations and proposed regulations. It is hoped that local Governments will lose no time in bringing his recommendations into force.²

The Washington Recommendation that an inquiry should be instituted into the question of maternity benefits for women was also carried out. An inquiry was made and **Inquiry about maternity benefits** a report submitted to the International Labour Conference in Geneva in 1921. As it was considered desirable that a further intensive inquiry should be made, two medical women were employed for the purpose in the industrial centres of Bombay and Bengal respectively. The report submitted by Dr. Barnes was published in the Bombay Labour Gazette ; the report for Bengal written by Dr. Curjel has also been published.³ No legislative action has yet been taken on their proposals. Action cannot however be postponed indefinitely. It is hoped that ultimately legislation will be possible securing to women industrial workers a definite period of leave at the time of child birth and some pecuniary help during that period.

Some time will probably elapse before further factory legislation is undertaken. Various new problems are however likely to arise **Probable trend of future factory legislation** and will require solution by legislative enactment. In the first place legislation similar to the Truck Acts in force in England will probably have to be considered in this country. At present employers in India claim the power to fine their work-people, sometimes for trivial offences ; they can make large deductions from wages for absence and they are entitled to withhold wages if the employees leave without giving due notice or in the event of a strike. Further it is a common practice in some centres, especially in Bombay, not to pay wages due till about the middle of the succeeding month. It is likely that in future these powers will be questioned and may be curtailed. The power to inflict

¹ Act XII of 1911, section 37 (g) as modified

² T. Maloney : Humidification in Cotton Mills

³ D. F. Curjel. Women's Labour in Bengal Industries, No. 31. Bulletin of Indian Industries and Labour.

fines should be limited and defined and the law should provide that in all ordinary cases wages should be paid at the end of each week as is at present the practice in the jute mills of Bengal. The employment of large numbers of children is a feature both of the cotton mills in Bombay and the jute mills in Calcutta. It may be hoped that in future legislation stricter provisions will be made to safeguard the health of child employees. Whole-time certifying surgeons should be appointed for large industrial centres whose duty it ought to be not only to give the necessary age certificates, but also to carry out a medical examination at stated intervals of all children below the age of 15. Further, before a child of 15 is allowed to become a full-time worker, the Certifying Surgeon should be required to give a certificate stating that he or she is fit to undertake such employment. This was one of Dr Nair's recommendations but has not yet been put into force. It is also obvious that in the case of girls the medical examination of fitness for employment should be carried out by medical women. When medical women are employed for this purpose they should also be charged with the duty of safeguarding the health of women generally and of pregnant women in particular. They should bring to the notice of factory managers anything in the nature of the employment which may be specially inimical to the health of the women workers. As I have already stated, the time cannot be long postponed when arrangements will have to be made by the State in cooperation with employers to regulate the employment of women at the time of childbirth. It may be also suggested that in factories in which more than 200 women are employed the employer should be required either to provide a crèche for the children of these employees or to contribute towards the support of a crèche in the proximity of his works. The passing of the Workmen's Compensation Act will undoubtedly render the treatment of accidents more effective than it has been in the past. Legislation should, however, in my opinion enforce the provision of ambulance rooms in all factories in which more than 500 persons are employed and where there is special likelihood of accidents causing injury. Separate arrangements should be made for women where their number exceeds 200. These ambulance rooms should be placed in charge of a man qualified in first aid, who should be assisted by a woman where women are employed. All ambulance

rooms should be supervised by the Certifying Surgeon of the area. In small factories there should be first aid appliances with one person at least on the factory staff qualified to deal with them. Inquiry into all serious accidents should be undertaken by a medical man appointed by Government whose certificate should be sufficient evidence in all compensation cases. He might well be the Certifying Surgeon.

The Washington Conventions and Recommendations have been ratified as far as factories are concerned. It was the intention

Need for legislation for other organized industries that they should be applicable also in the case of mines and quarries. The mines legislation that has recently been passed will

be examined later on. In view of special circumstances a narrower definition of the term "industrial undertaking" was accepted at the Washington Conference as far as India was concerned. For other countries the term included 'all construction, reconstruction and maintenance works, as also all transport of passengers or goods by road, rail, sea or inland waterway.' In short, every form of organized industrial employment, with the exception of agriculture, was considered as falling within the scope of the Washington Conventions and Recommendations. Although therefore India has carried out the obligatory portions of the Washington Conventions and Recommendations that were applicable to her, legislation will probably be demanded for the application of the same principles to the forms of industrial undertaking which are at present excluded from Indian legislation. It should however be pointed out that there is much preparatory work to be done in India before effective legislation can be introduced to deal adequately with all these different forms of organized employment.

The conditions of work of agricultural workers were considered at the meeting of the International Labour Conference held at

International Labour Conference 1921 Geneva in 1921. The Recommendations and

Conventions that were passed there were intended to secure to agricultural workers the same benefits that had been conferred on industrial workers by the ratification of the Conventions and Recommendations drawn up at Washington. In a country like India where peasant holdings prevail and where little machinery is used in agriculture, it does not seem to me that the enforcement of these recommendations is

a matter of urgent importance. Even if India were to ratify them, it would be practically impossible to enforce them and the law would remain a dead letter. Attempts ought to be made to educate public opinion and large agricultural employers so that what cannot be done by legislative enactment may be done voluntarily. Where the State is the landowner progressive measures should be gradually introduced which will serve as an example to other landowners. In a country as vast as India where the majority of agricultural workers are illiterate and incapable themselves of recognizing the value of these reforms or of pressing for them, progress will be slow.

Before passing on to the Mines legislation and to the more general labour legislation recently enacted I propose to say a few words about the enforcement of the legislation relating to factories. Although the

Factory Inspection Act of 1881 had given local Governments the power to appoint factory inspectors, as late as 1908 the system of factory inspection was stated, except at a few centres, to have proved a failure. The cause of the failure was undoubtedly the small number of full time inspectors appointed. At that date there were only six for the whole of India. The inspection of factories was largely in the hands of *ex-officio* inspectors 'who had neither the time nor the special knowledge necessary for the work'.¹ The Labour Commission of 1908 accordingly recommended that there should be at least one full-time inspector for each province and that in Bombay there should in addition be four whole-time inspectors and that Bengal and Assam should together have two inspectors was recommended.

Inspections

Year	Once	Twice	Thrce	More than three times	Total	Not Inspected	Grand Total
² 1917	1315	551	273	346	2485	756	3241
² 1918	1502	327	115	423	2367	951	3318
² 1919	1839	416	225	233	2713	810	3523
³ 1920	1576	633	250	169	2628	1098	3726

¹ Report of the Indian Factory Labour Commission 1908 page 66

² Annual Report of the Working of the Indian Factories Act for 1919, Statement VII.

³ Annual Report of the Working of the Indian Factories Act for 1920, Statement VII.

Since the date of this report there has been a considerable addition to the factory inspecting staff. The position is however not yet by any means satisfactory. From the tabular statement (on previous page) it will be seen that large numbers of factories are not inspected each year and that the great majority are not inspected more than once. Act II of 1922 has brought a very much larger number of factories within the scope of the Factories Act. Unless the staff is increased correspondingly the Act will be largely a dead letter.

When the staff is being increased women inspectors should be appointed in each province. Although in 1920 there were 184,922 women and 11,933 girls employed in factories¹, no woman inspector had been appointed. In answer to a question in the Legislative Assembly it was announced that the Central Provinces Government were considering such an appointment, but apparently no other Government had then reached that stage. The recent publication 'Women in the Factory' by His Majesty's Principal Lady Inspector of Factories² gives abundant proof of the utility of such appointments, and will set persons interested "wondering" to use the words of Viscount Cave in the introduction, "why the woman worker has for so long been grudged the help which only a woman can give"³.

But not only is it necessary to establish an efficient system of factory inspection, members of the International Labour Organization were recommended by the meeting
Industrial Health Service of the International Labour Conference at Washington⁴ to establish in addition "a Government service especially charged with the duty of safeguarding the health of the workers." The need of such a Service is especially urgent in India. Dr. Nair, a member of the Indian Factory Labour Commission, gave it as his opinion that the instability of mill labour was due to "the physical breakdown of the labourer which unfit[s] him for any further mill work."⁵ Additional evidence shewing the exhausting nature of the work

1 Annual Report on the Working of the Indian Factories Act for 1920 page 17

2 Women in the Factory by Dame Adelaide Mary Anderson.

3 Op. cit. page VII.

4 International Labour Conference 1919, Recommendation concerning the establishment of Government Health Services.

5 Indian Factory Labour Commission 1908, page 89.

in cotton mills was given by Mr. Bazanji Dadabhoy (now Sir Bazanji Dadabhoy) who was then Manager of the Empress Mills, Nagpur. He furnished a tabular statement shewing the attendance of workpeople in September 1905, May 1907 and October 1907.¹ From this statement it is evident that on an average only little over 30 per cent of the men, 21 per cent of the women and about 55 per cent of the children were never absent during the entire month. Approximately 15 per cent of each class of workers worked less than half the month. To cover absentees Mr. Bazanji had to engage 10 per cent extra hands. Besides this bad time-keeping the management were faced with a large labour turnover. To maintain a staff of approximately 5000 workers the same number had to be engaged during the year.²

This large labour turnover is a feature of many mills in different parts of India. Data supplied to the Factory Labour Commission shewed that in mills in Bombay, Nagpur and Madras all the workers changed on an average once in 18 months.³ Dr Nair attributed this large exodus from the factories to the strong desire of the operatives to return home as soon as they fell sick.⁴

The importance of the health of the workers in relation to industrial development was emphasized by the Sanitary Commissioner with the Government of India in a paper that he contributed on the subject to the Indian Industrial Commission 1916–1918.⁵ He drew attention to the necessity of the appointment of health experts as inspectors under the Act. There is abundant evidence of the great need for doing everything possible to safeguard the health of industrial workers. A beginning has been made in some provinces by the appointment of the Directors of Public Health as ex-officio Inspectors of Factories, but undoubtedly much still remains to be done. When an industrial medical service is created room should be found in it for the appointment of medical women. The fact that women find it particularly difficult to adapt themselves

1 Indian Factory Labour Commission 1908 Vol. II Evidence page 381

2 do. do. do. do. do. page 367

3 do. do. do. do. Vol. I. page 88

4 Op. cit. Vol. I page 88

5 Report of Indian Industrial Commission 1916–1918 Appendix L page 459 entitled "Industrial Development and Public Health" by Major Norman White.

to the strain of factory life is evident from the time-keeping returns supplied by Mr Bazanji. They have not the same physique as men and as they seek work in factories only because of great pecuniary need, the necessity of safeguarding their health is extremely important.

These suggestions relating to inspection and the provision of medical aid for industrial workers are also applicable to workers in mines. I shall now examine how far their **Mines Legislation** health and welfare has been safeguarded by rules and regulations. In 1901 the first Indian Mines Act was passed and inspectors were appointed. Within comparatively recent times there has been a rapid development of mining in India. The Washington meeting of the International Labour Conference directed the attention of the Government of India to the conditions of employment in mines. A Convention was passed recommending that a sixty hour week should be introduced in Indian mines and that children under 12 years of age should not be employed. The Conference further suggested that for underground work a fifty-four hours week for adults should be considered. In view of these recommendations and also because of the large numbers employed the Government of India felt themselves compelled to revise the Indian Mines Act. A bill for this purpose was introduced in September 1922 and passed early in 1923. The chief features of the new law are the limitation of the hours to sixty in any one week for workers above ground and to 54 for underground workers. No week is to consist of more than six days¹. Further no child is to be allowed to work in a mine² and a child is defined as a person under the age of 13 years³. Boys and girls over that age are allowed to work the same hours as adults. No definite limitation has yet been placed on the employment of women. This latter point raised considerable discussion in the Legislature. Mr. Joshi, the nominated Labour Member, urged that women should be prohibited from working underground. He did not succeed in carrying this point. The Government were in sympathy with the

¹ Bill to amend and consolidate the law relating to the regulation and inspection of mines. Section 23.

² " " 26.

³ " " 3.

proposed reform but urged that practical considerations precluded them from taking immediate action. According to the latest returns available no less than 57,403 women were employed in 1921 below ground¹. It would cause severe dislocation if without warning they were prohibited from continuing to do so. It was felt too that the prohibition of the employment of children below ground would have an indirect effect in preventing such large numbers of women from going underground. The Act however empowers the Government by executive order to prohibit the employment of women underground and the spokesmen of the Government in the Legislature undertook to consult the Provincial Governments and public opinion with a view to promulgating suitable orders.

Conditions of employment in mines are regulated not only by the Mines Acts in force but also by the appointment of Mines

Mines Boards of Health Board of Health whose duty it is to look after the health of the labour force. For the coalfields in Bihar and Orissa a mining and settlement Act was passed in 1920². This Act empowered the formation of a Mines Board of Health and the creation of a Mining Settlement Fund. It also gave the Board the power to compel owners of mines within the mining settlement area to provide house-accommodation, water-supply, sanitary arrangements and medical assistance.³ The rules under this Act have yet to be fully enforced, but it is hoped that when the regulations have effect there will be considerable improvement in the conditions of health in the coalfields. The present writer made a special investigation into these conditions in 1920 and 1921 and was convinced that the efficiency and output of the miners would greatly improve if all owners devoted the same attention to the health and comfort of their workers as some of the more enlightened among them do at present.

The severe and fatal accidents to which men and women are exposed in the course of their industrial employment have made

Workmen's compensation most civilised countries grant some measures of protection to workers, by ensuring to them in such cases pecuniary compensation for

¹ Report of Chief Inspector of Mines for 1921 page 37.

² and ³ The Bihar and Orissa Mining Settlements Act 1920 (Bihar and Orissa Act IV of 1920)

their loss of actual wages and earning capacity. In England workpeople had received a certain degree of protection under the Factory Act of 1878. They had also the right after 1880 to take action against the employer under the Employers' Liability Act. Workmen's Compensation Acts were passed in 1897 and 1900. The Act of 1906 consolidated the previous legislation. In India progress has been considerably slower. As far back as 1884 workers in Bombay asked that a man who sustained serious injuries should be given full wages during the period of disablement and that "in case of his being maimed for life suitable provision be made for his livelihood"¹. Although a certain number of enlightened employers instituted a system of compensation for their workpeople the practice was by no means general. Legislation to enforce minimum payments in respect of accidents was introduced in 1922 and passed early in 1923. Prior to this Act a workman had the right to sue an employer under the Fatal Accidents Act of 1855 in the case of death arising from an accident, but this Act was seldom invoked. Further with regard to the general question of Employers' Liability the position in India was vague.

The Workmen's Compensation Bill was drawn up with a view both to make clearer the employers' liability should a workman decide to sue his employer in a Civil Court (see footnote)² and to devise a simple and easy method of securing payment to workers of compensation without the matter necessarily being taken into Court. The legislation was admittedly experimental. Very few data were available with regard to industrial accidents and employers are faced with risks which it is difficult to compute. The acceptance of the principle that workers are entitled to compensation for injury by accident is however a great step in advance. The Bill had naturally to be limited in its applicability. All workers in factories which come under the scope

Workmen's Compensation Bill 1 Report of Commission to consider Working of Factories in the Bombay Presidency 1885, page 230.

2 The Employers' Liability provisions of the Bill were dropped by Government during the course of its passage through the Legislature. The Act is now confined only to Workmen's Compensation on the analogy of the English Act of 1906. The position in India with regard to employers' liability under the Common Law continues to remain uncertain.

of Act II of 1922 are entitled to benefit, as also workers in mines. Other classes of beneficiaries are transport workers such as railway and tramway men, and certain classes of workers on ships and dock labourers. Within certain limitations men employed in the building trades, as also telegraph and telephone linesmen; underground sewage workers and members of fire-brigades complete the list.

The scale of compensation is based on the average wages of which the worker was in receipt before the accident. In the case of a fatal injury the dependants of adults are entitled to much heavier compensation than the dependants of minors as in the one case the death of the breadwinner has to be compensated for, while in the latter the wages earned were only an addition to the family wages. Thus the compensation for an adult who is killed is the equivalent of 30 months wages subject to a maximum of Rs 2,500, while in the case of a minor only Rs. 200 has to be paid. Whether this will in any way tend to cause dangerous work to be put in the hands of minors will have to be carefully watched. In the case of complete disablement minors get compensation for twice as long a period as adults. In the case of temporary injuries adults receive half-wages and minors two-thirds.

If this measure is to be successful and to bring to the worker all the advantages it is intended to secure, the inquiry into accidents that occur will have to be done both rapidly and by a medical man who is capable of forming an estimate of the probable consequences of the accident to the worker. Not only will employers have to protect themselves by engaging medical men to attend to such cases, the State will have to see that the worker has also the benefit of an impartial and well qualified judge. In recent reports of the Inspectors of Factories for Bengal¹ and Bihar and Orissa² statements are made that owing to the lack of regular inspection accidents are not always reported, especially by factories in outlying areas. The former adds that "as there were only two inspectors at work during the greater part of the year, many of the accidents could not be inquired into until some time after their occurrence". Such delay where cases of compensation are involved may possibly prove fatal to the workman's success in

¹ Annual Report of the Working of the Factories Act in Bengal in 1921 pp. 6 & 7.

² Do. Do. Bihar and Orissa in 1921 page 4.

maintaining his case. It seems to the present writer that in order to secure a fair and harmonious working of the new law the examination into cases of accidents should be entrusted to certifying surgeons whose numbers should be increased for this purpose.

Another measure which Government is pledged to introduce is a bill for the registration of Trade Unions. In a speech delivered

Proposed Legislation for Trade Unions by His Excellency the Viceroy on the 3rd September 1921 he stated that "the recent industrial unrest had been accompanied by a

growth in the number of Trade Unions and that the question of giving adequate protection and legal status to these Unions which are genuine labour organizations is at present under consideration".¹ About the same time the Government of India published a circular letter giving their own provisional views regarding the terms of the proposed legislation and inviting criticism and suggestions. From the replies submitted by public bodies and associations that have been published in the press, it would appear that there is considerable diversity of opinion as to whether all Unions should be compelled to register and whether the immunity from civil suits conferred on Unions in England by the Act of 1906 should be extended to Unions in India. Many employers' associations have also objected very strongly to the privilege of peaceful picketing that has been conferred by legislation in Britain.

The bill has not yet been introduced, doubtless because of the many difficult problems that have to be decided. The Trade Union movement is still at an initial stage in this country. There has been, if anything, a retrogression in this respect during the last two years for, with falling prices, workers have not the same incentive as they had in 1919 and 1920 to combine to secure higher wages. On the other hand, employers in certain centres such as Ahmedabad are endeavouring to reduce wages. In short, labour is still largely unorganized and its instability coupled with illiteracy makes combination difficult to achieve. There are in existence a certain number of Trade Unions and there is an Annual Trade Union Congress with which I propose to deal in a subsequent section. It is sufficient here to point out that the standard that

¹ Speech delivered on the 3rd September 1921 in inaugurating the Second Session of the Council of State and Legislative Assembly.

will be laid down when legislation is taken up should be of considerable assistance both to existing Unions and to those that will ultimately be formed, and should also help to gain the confidence of employers. It may perhaps be to the ultimate advantage of labour if legislation on the subject of Unions is deferred until a fairly large number of strong and genuine Unions are in active function.

The Viceroy, in the speech to which reference has just been made, added that "the Government were also carefully studying the question of arbitration and conciliation."

**Arbitration and
Conciliation**

Here again no legislation has yet been undertaken by the Central Government, but two important Committees have examined the question in Bengal and Bombay respectively and have made certain recommendations. The Bengal report was issued in 1921¹ while that for Bombay appeared in April 1922.² The Bengal Committee found itself hampered by lack of definite information relating to the Labour movement. This was due to the fact that no Labour Office existed for the purpose of collecting data. This defect has since been remedied. In Bombay a Labour Office had been started in April 1921, a year prior to the report of the Committee. There can be little doubt that if the labour problem is to be studied scientifically Labour Offices should be organised in all the provinces, and these should be in charge of such persons as have had experience in dealing with labour matters, and are capable of inspiring confidence among the employees as well as among the employers. In each office there should be a department in charge of a woman official to deal with all matters in which women are primarily concerned. No such appointments have yet been made, a surprising fact in a country like India, where women are loath to discuss either their maladies or industrial difficulties with men. There are however four lady investigators attached to the Bombay Labour Office.

The recommendations of the Committees for Bengal and Bombay with regard to the machinery for settling disputes differ

**Reports of Bengal
and Bombay
Committees**

on some fundamental points. In my view the method of settlement suggested by the Bengal Committee is more likely to prove

1 Report of the Committee on Industrial Unrest in Bengal in 1921.

2 Report of the Industrial Disputes Committee, April 1922. Published in Bombay Labour Gazette.

beneficial to the working people. Taking into consideration the unorganized state of labour, they recommend the formation of Works Committees in individual works to deal with grievances as they arise and before the weapons of the strike or lockout have been resorted to. Where a strike or lockout has however taken place they recommend that a Conciliation Court should deal with the matter, if asked to do so by one or other of the parties concerned in the industrial dispute. In the case of a public, utility service, the Government may of its own motion invoke the aid of such a Court. The members of the Court are to be selected from "a Conciliation Board or panel consisting of about twenty members to be appointed by Government and to include a due proportion of all classes of the community both European and Indian, and representatives of both capital and labour".¹ The members selected are to be "entirely unconnected with the dispute." But while much stress is laid on the utility of Works Committees in the prevention of strikes in the Bengal report, the Bombay report gives them but faint praise. Further the Court for the Settlement of disputes, instead of consisting of impartial members as in Bengal, is to be made up in Bombay of

- (a) a chairman selected by the members of the Court from a panel maintained in the Labour Office ;
- (b) three members representing the employers in the industry concerned ;
- (c) three members representing the operatives in the industry concerned.²

The position of the Chairman is hardly likely to be an enviable one, nor is his casting vote likely to find much favour with the side against which it is used. When a strike takes place in a public utility service the Committee recommend that there should be in addition "three representatives of the general public."

The Government of Bengal have already taken action on the recommendations of their Committee. Panels of members have been constituted and on the only occasion when the voluntary machinery recommended by the Committee was utilized it proved entirely successful. The Government of Bombay have not yet however taken active steps to give effect to the suggestions of their

1 Report on Industrial Unrest in Bengal 1921 page 7

2 Report of Industrial Disputes Committee 1922 pages 26 & 29

Provincial Committee. In answer to a question asked in the Legislative Council the reply was given that "the suggestions had been considered by Government, particularly in regard to courts of inquiry and courts of conciliation. Details were being worked out and as soon as Government was satisfied on these points legislation would be introduced as early as possible after the sanction of the Government of India had been obtained"¹

The numbers and extent of industrial disputes had greatly increased in India in 1920 and 1921.² In the spring of 1922

**Industrial
disputes**

there was a very important strike on the East Indian Railway which caused great damage not only to public revenue as the railway is State property, but to the commerce and industries of the country. There was a comparative lull in the situation after April 1922, but signs are apparent that the efforts now being made by employers to reduce wages will again bring about serious industrial strife. In the absence of proper Trade Unions strikes in India are brought about either by leaders who come into prominence at the time or by committees of employees appointed *ad hoc*. There is, generally speaking, no permanent strike fund. Whatever the merits of the dispute may be, there is no doubt that a prolonged strike causes grave suffering to the industrial workers affected and loss to the industry itself, besides inflicting much public inconvenience. These evils are accentuated in the case of a strike in a public utility service

Most industrial countries have adopted machinery, either voluntary or compulsory, to prevent and to mitigate the evils of industrial strife, especially in industries connected with important public utilities. It is desirable that measures in this direction should not be further delayed in India. Every large strike operates as a factor against the harmonious flow of labour into industries. In a country like India, where labour is highly unstable, travels long distances, and is scarce whenever there is plentiful agricultural employment, it is important that, in the general interests of the country, industrial strife should be minimised as far as possible. It is not possible, within the limits

1 Bombay Labour Gazette March 1923 page 24.

2 For fuller information please refer to the issues of the Journal of Indian Industries and Labour 1921-22.

of this book, to discuss the various forms of machinery for conciliation and arbitration that will be appropriate in this country.

The problem relating to 'breach of contract' exists in a more acute form in India perhaps than in any other country. This is due to the extreme poverty of the working classes who, in return for small advances of money, are willing to pledge themselves to work for long periods, while they are quite unfamiliar with the conditions under which the work has to be done. On the other hand for many forms of organized industry and particularly for large public works, labour has to be imported from long distances and often at considerable expense to the employer who is naturally anxious to secure for a definite period the services of the men so obtained. Another fact which renders this problem more serious is the method of the recruitment of labour. Managers of mines, tea-gardens and even of factories engage their workers in large measure through contractors. Frequently the entire management of the labour so engaged is left in the hands of the contractor who not only draws the wages of the gang of workmen he supplies, but supervises their work. In some cases he even draws their sick pay and gets a certain allowance with which to provide housing for the workers

Such a system is undoubtedly open to grave abuse. Some of the abuses came to light in the recent inquiry into the conditions of employment of tea-gardens in Assam. In that report a short account is also given of the history of Act XIII of 1859 and its subsequent modification by Act XII of 1920.¹ In addition a short account is given of tea-garden labour legislation for Assam from 1906 onwards.²

According to the law as it now stands, workmen who have accepted a monetary advance and signed a contract are liable, on leaving the work without valid excuse, not only to civil damages but to fine and imprisonment as for a criminal offence. It is contended that a measure like this is repugnant to all modern ideas and does more injury than good to the cause of harmonious relations between employers and employees and the general advance of industry in the country. There has been considerable agitation

¹ Report of the Assam Labour Inquiry Committee 1921-22 page 75.

² Op. cit. page 102.

on these lines in India in recent times and, as has already been stated, the Government of India felt compelled in 1920 to pass an amending Act considerably modifying the law in favour of workmen. The Assam Committee have now pronounced against even the amended Act. The objections in principle to the law are so cogent that in the course of a recent discussion on the subject in the Indian Legislature, Government undertook to repeal the law as a general measure with effect from 1926, leaving it open to Provincial Legislatures to pass enactments of local and temporary application should necessity arise.

Besides passing legislation to enforce certain minimum standards, the Government of India does much to encourage the

General propaganda work voluntary provision of welfare work in mills and factories. Works Committees, for instance, have been started in Government factories, and employers have been encouraged to do likewise. The Industries Department both centrally and locally, through means of its publications, is endeavouring to bring about an enlightened public opinion with regard to the treatment of industrial workers. In these various ways the State intervenes with a view to bringing about an improvement in the conditions of employment. It is not sufficient, however, for the State to look to the welfare of employees merely in connection with their work. In a country as backward in so many ways as India, the State has many further duties thrown upon it with regard to what is known generally as 'extra-mural' welfare.

The inferior physique of the people and the terrible ravages caused by epidemics make the provision of medical aid an urgent

Medical aid necessity in India. Industrialisation will inevitably be retarded so long as extensive work is not undertaken in this direction.

It has been stated that the vast majority of the people in India die without having received any medical aid whatever during the course of their lives. In this way the labour supply is not merely lessened, but the survivors of the dreadful epidemics are frequently so seriously debilitated that their efficiency and earning capacity are gravely impaired. The State therefore needs to take in hand measures to improve the health of the general population. Special problems arise in an acute form when vast numbers are congregated

together in towns and cities. The requirements of this class of workers should receive special consideration.

There are at present a Public Health Commissioner attached to the Central Government and Directors of Public Health attached to each Provincial Government. The latter are more directly concerned with the particular difficulties connected with the health administration in their own provinces. Attention has already been drawn to the fact that they can render invaluable assistance and advice with regard to the health of factory operatives. Directors of Public Health have been given, in most provinces, the powers of factory inspectors. It may be noted in this connection that there is room in India for extensive research regarding the causation and spread of epidemics such as malaria, plague and hookworm which affect very seriously the efficiency and stability of labour in organised industries. A beginning in this respect has in fact been made in some Provinces, for instance by the Madras Government in co-operation with the Rockefeller Foundation. It is not possible for individual employers to take effective measures for the study of these matters, though possibly much could be done by large employers' associations. It is important however that the State should realise its obligations in this respect, especially in view of the vital industrial interests concerned. Similarly there can be little doubt that the poor physique and limited energy of the industrial worker in India are largely the result of his dietary. It is true that the food consumed by the labouring classes is regulated by the limitation of his wages and also by the limitations imposed by caste rules. But even within these limits it is probable that much improvement could be effected by a better choice of dietary. Also, whereas in the villages the worker can at least procure pure and wholesome articles of food, in the towns he has often to consume stale and adulterated foodstuffs. Much can be done by the State and local authorities not merely by facilitating the provision of good food but by research and propaganda with regard to suitable articles of dietary.

The majority of industrial workers are not only poor and illiterate, but also very ignorant as to how to manage their affairs

Co-operative Stores when they become denizens of a large city. In many instances they fall an easy prey

either to the money-lender or to the man from whom they buy their daily provisions. Many of them are consequently heavily indebted either because they have taken loans at an exorbitant rate of interest or because they have taken goods on credit and have in consequence been debited with an amount much in excess of the value of the goods. The practice already adverted to which obtains in industrial centres such as Bombay of paying wages considerably in arrears aggravates this evil. Some benevolent employers have started shops of their own in order partially at least to remedy this evil, but there are obvious objections to this course, from the point of view of employers as well as employed.

Though much has been done to help the agricultural worker by means of co-operative societies, the needs of the industrial workers have not yet been met to anything like the same extent. The problem is naturally a much more difficult one. The success of Co-operative Societies is largely dependent on mutual knowledge and mutual trust. Amidst a heterogeneous and unstable factory population both these assets are hard to obtain. Employers could, however, give considerable assistance and have, in some instances, done so. Social agencies such as the Servants of India Society and the Social Service League in Bombay have organized societies for the benefit of mill hands, but only the fringe of the problem has yet been touched. There is need for societies for the supply on reasonable terms of the daily requisites and there is also need for thrift societies which would encourage workers to save against sickness, unemployment or the expenses of a journey home.

The provision of education is necessarily a large subject and in its wider aspects does not fall within the scope of this book. The **Provision of Education** illiteracy however of the industrial classes renders some educational measures an urgent necessity. The raising of the age of the employment of children from 9 to 12 by the Act of 1922 at last makes it feasible to devise methods that will secure for them a modicum of education before they start industrial work. The fact that they will be only allowed to work half time till the age of fifteen also makes it possible for them to continue their education, even after they have entered factories. The provision of adult education is also an imperative need. Not until all factory employees have opportunities for education can much be hoped for in the way of industrial advance.

Recognition of the need of education has already made the various provinces pass Acts dealing with compulsory primary education on permissive lines. In all the Acts the principle of local option has been adopted. The initiative is left with the local authorities who may submit schemes for the introduction of compulsory education within the areas they control. If approved they are permitted to levy additional taxation to meet the necessary expenditure. With the exception of Bihar and Orissa, the Punjab and Bengal Acts, girls are included as well as boys. The Central Provinces Act may be made applicable to girls. The age limit is generally between 6 and 11, but in the Central Provinces the upper limit is as high as 14, while in Madras the matter is dealt with specifically in the case of each local area and no general age limit is enforced throughout the province.

The greater number of the provinces are hampered in their efforts to introduce compulsion by lack of funds and of trained teachers. Much could be achieved if in industrial areas employers could be induced to bear a substantial portion of the cost of such schemes. If at the same time the schools were utilized in the evenings for the education of adults the employers would reap a double advantage. Not only would future recruits be trained for them, but their existing staff would be in a position to acquire a certain amount of education, which would undoubtedly be advantageous to both employer and employed. At present both are hampered in their efforts to arrive at mutual understanding by the ignorance and illiteracy of the workers. The provision of education would help to remove this cause of difficulty apart from its influence on the general efficiency of the labouring classes.

Closely allied to the provision of general education is the question of technical education for industrial workers. This

Technical education problem has received considerable attention during the last fifteen years from the Government and the general public in India.

Much progress has been made, especially in the United Provinces and Madras, but a great deal still remains to be done. Under the reformed constitution in India, education, including technical education, is a subject within the sole competence of provincial Governments and legislatures. Unfortunately at this moment the provinces are passing through a period of exceptional financial

stress and are consequently unable to tackle the problem in an adequate manner. In their projects for technical education the authorities should keep in view three distinct branches of the question. There is first the training of handworkers in the numerous arts and crafts, including such important trades as hand-loom weaving, which still give employment to a very large proportion of the Indian industrial population, and which have been referred to in Chapter III of this book. Secondly, the training of the workers in the various organized industries of the country needs attention. Thirdly, the State has to consider the education of the superior staff and the management of the organized industries. It is often the case that the proper education of the 'rank and file' in the factories is neglected, it being assumed that actual work in the machine sheds is sufficient training for their purpose. As a matter of fact there can be no doubt that proper technical instruction for mill and factory workers leads to a considerably improved efficiency and output. Also it is from the ranks that the best chargemen and foremen are recruited.

The problem has been dealt with exhaustively as far as the province of Bombay is concerned in a report published in 1922.¹

Report of Bombay Committee The Committee split up into two parties of ten Englishmen who submitted a Majority report and six Indians who wrote the Minority

report. The most important difference, as far as the interests of industrial workers are concerned, lay in the types of schools that should be provided and the number of pupils to be trained. The majority held the view that the best means of giving practical training to young men was by establishing apprentice schools attached to large workshops and factories and estimated that about 600 would take advantage of such training. The minority, on the other hand, recommended the institution of full-time day industrial schools with workshops and laboratories attached. There is much to be said on both sides, but the alternatives do not by any means seem mutually exclusive and it would be advantageous if both systems could be tried.

The majority made the further important recommendation that "if practicable, the education of half-time employees should

¹ Technical and Industrial Education in the Bombay Presidency—Final Report of the Committee appointed by Government 1922.

be compulsory and free."¹ They do not consider that employers should be compelled to provide such education, but have no objection "to the employment of half-timers being made contingent on the provision by employers of suitable school accommodation when more than 20 half-timers are employed." It may here be remarked in parenthesis that the subject of the technical instruction of half-timers cannot be disposed of without a careful study whether children under fifteen would be able to stand, in this climate, the combined strain of regular work in the factories for five or six hours and technical instruction for two or three hours.

I have not in this book examined in any great detail the causes and the possible remedies for the notorious inefficiency of

Inefficiency of Indian Labour

Indian labour. In my view the problem

should first be solved how to make conditions

such that labour will be content to remain in

industry for longer periods than at present. Until a satisfactory answer is found to this prior question it will not be fully economic to train workmen at much expense. Once however a firm has succeeded in establishing a more or less stable labour force the question of training becomes a paramount one. The Indian labourer is admittedly inefficient. Apart from the total lack of education, general or technical, the subsidiary causes of such inefficiency are very numerous. In many cases the worker does not eat sufficient food to give him the necessary energy for his work. In crowded industrial centres the period of rest between one day's toil and the next is often spent in conditions which make it impossible for his energy to be repaired in the interval. Frequently there is no one in the factory who is at all interested in seeing that he gets even a modicum of instruction as to how he shall carry out the particular task allotted to him. Should he display special energy and exceptional interest it is not likely to be noticed. He is often a total stranger to the conditions that obtain in a factory and his bewilderment may cause him to do poor work or to suffer from accidents.

Some of these causes of inefficiency will be remedied by the provision of technical instruction. A better and more intelligent class of workmen will be attracted to factory work if technical instruction is available and if the increased skill they attain thereby

¹ Report of Committee on Technical and Industrial Education, in the Bombay Presidency, page 27.

is adequately remunerated. The other problems will have also to be tackled if the workers are to benefit by the increased facilities provided for their training.

Undoubtedly one of the most urgent problems connected with the health, well-being and general efficiency of industrial workers

**Housing for
industrial
workers**

is the provision of suitable housing. In no

respect is the contrast between village and town life greater than in the housing conditions with which the majority of workers have

to be content when they seek industrial work. In villages each family lives together and frequently is the owner of a little group of huts in which the different domestic activities are carried on. This has been fully described in Chapter III. I have also given in Chapter V a brief account of the housing conditions in centres like Bombay and Calcutta. Probably in no industrial city in the world are conditions as bad as in Bombay.

In this Chapter I shall give quite briefly the conclusions to which I have arrived as a result of the study of the housing question in different parts of India. The first point that needs emphasis is the fact that the majority of the operatives are used to village life and retain its habits. They dislike very much the idea of living crowded together in tenements. An effort should therefore be made when providing housing to retain all the best features of village-life. The only way of achieving this end is by the decentralisation of industries and the improvement of communications. Where factories and factory population have been allowed to grow up in congested city areas all that can be recommended is that a palliative policy should be adopted and measures should be taken to prevent further over-crowding.

In new areas the factories should be grouped together and a labour settlement should be established at some distance from the works. This settlement should resemble as much as possible the villages from which the majority of workers come. Arrangements should be made for the workers to get to their work with ease. The dwellings should be some distance apart and should have land surrounding them. To bring about the feeling of corporate life voluntary workers like the Servants of India and the Social Service League should be encouraged to send workers to organize education and recreation for the inhabitants.

The question of finance is necessarily difficult. The policy of compelling employers to provide housing for their workers has not many advocates to-day. It is not in conformity with modern ideas that employers should have so strong a hold on their labour. There is not the same objection to levying a tax on employers for this purpose. Housing schemes for a labour colony might then be started by the local authorities concerned, who should be given aid by Government provided the scheme they submit is approved. Government can also do much by granting loans at a low rate of interest and for a long term to co-operative housing societies. Another way in which Government may render assistance is by making land acquisition for the provision of dwelling houses for industrial workers possible on fairly easy terms.

B ACTION BY EMPLOYERS

Factory employers in India have, on the whole, been more concerned with improving the external conditions of factory life

rather than with introducing what may be

I. Intra mural welfare work designated as 'welfare schemes' within the factory. The various accounts of welfare

activities submitted to the All-India Welfare Conference which met at Bombay in April 1922 bear out this statement. Only one firm gave any detailed account of the work that is being done *inside* the factory. It should, however, be mentioned that a certain number of firms do provide for their workers, inside the factory, arrangements such as dispensaries which are not compulsory by law. But on the whole, it is true to say that there is no organized attempt on the part of factory managers generally to take steps to secure and maintain a stable and contented labour force. They remain content with haphazard methods of engagement and selection. The specific duties of seeing to the well-being of the workers, of inquiring into their grievances, of seeing that they get the work for which they are suited, and above all of making them feel at home when they first arrive in the factory, are at present not entrusted to any particular member of the staff. These are grave defects of factory management. The consequences are apparent: a large labour turn-over, bad time-keeping on the part of those that stay, much unnecessary sickness, sudden strikes for trivial reasons. Many of these evils could be mitigated, if not altogether removed, were persons appointed

whose duties it would be to look into and remedy the causes. Welfare superintendents inside factories and employment superintendents are rare in India. There are a few but in view of the great assistance they could render to the manager and to labour generally it is surprising to find how few have actually been appointed.

Dispensaries, where accidents are attended to and medicine provided in cases of sickness, are a feature of the larger and more important factories in India. Thus the

Medical aid Calico and Jubilee Mills, Ahmedabad, the mills and factories of the British India Corporation, Cawnpore, the Buckingham and Carnatic Mills, Madras, the Morarji Goculdas Mills, Bombay, the Bombay Mills, belonging to Messrs. Tata Ltd., and the Empress Mills, Nagpur—all provide free medicine and treatment for their employees. In addition the two last mentioned have engaged the services of women doctors to look after the health of the women and children and to supervise the crèches and the maternity benefit schemes run in connection with their works. The Tata Mills have also recently started a system of home-visiting in cases of illness and the mill doctors are informed when patients need to be visited in their own homes.

Besides providing treatment in cases of illness some firms also gave compensation voluntarily in cases of accident. In the British

Compensation for accidents India Corporation an injured employee is provided with free medical treatment and full pay during absence and if he is living alone a

fellow-workman is deputed to attend him. Permanently injured men are given special consideration. Aged widows of old employees are given monthly allowances, while young widows are given a lump sum varying between Rs. 100 and 300, which often serves as a wedding dowry. The Calico and Jubilee Mills also give compensation in case of accident and so do the Empress Mills. At the latter place half-wages are paid during absence caused by an accident and employees who have sustained serious injuries are given light work when they return, but draw the same pay as they did at the time of the accident. In the case of fatal accidents the heirs of the deceased receive a minimum of Rs. 300 and a maximum of Rs. 1,000.

In addition to accident compensation the Empress Mills have started a Voluntary Sick Benefit Fund open to all employees. A monthly subscription of Rs. 1-2-0 entitles a man to Rs 25 for the first six weeks of illness and Rs 15 for the succeeding eight weeks. It is surprising to find that hitherto no one has joined this Fund. A similar fund in Bombay for the Tata Mills has secured a number of contributors.

Besides giving medical aid at the time of illness some firms, notably the Empress Mills, Nagpur, the Calico and Jubilee Mills,

Sick Benefit Funds Ahmedabad, the Currimbhoy Ebrahim Mills, E. D. Sassoon & Co. Ltd and the Mills of

Crèches for factory children Messrs. Tata Ltd provide crèches for young children belonging to their employees. The crèche at the Empress Mills can well boast of the healthy and happy appearance of the babies. It is under the direct supervision of the lady doctor employed by the mills. The crèches provided by Messrs. Tata Ltd come under the care of the lady doctor who is in charge of the women employees. The healthy atmosphere and the care provided at these crèches are bound to have a very appreciable effect on the health of the children. Careful data are in some cases being collected, but, in order to make the comparison complete, data should also be simultaneously collected relating to the health of small children taken into the factory by their mothers.

Closely connected with the above subject is the provision of maternity benefits for women employees. At the Calico and

Maternity Benefits Jubilee Mills women are prohibited from working for a period of three months and are paid Rs. 15 a month during that period.

Arrangements are also made for providing a nurse in the mother's own home at the time of childbirth and subsequent treatment is given free. At the Empress Mills and at the Tata Mills, Bombay, women who have worked for 11 months are entitled to a maternity allowance of 2 months' wages with usual allowances. The women doctors belonging to these Mills are largely responsible for the success of these schemes, which it is true to say could scarcely be managed without their aid.

Provident and Pension Funds are a feature of both the Empress Mills, Nagpur and the British India Corporation, Cawnpore, but in

Provident and Pension Funds

the latter case only employees earning more than Rs 50 a month are allowed to join the Provident Fund. Both the firms contribute an amount equal to the amount of the member's actual contribution during the year and interest is paid. Faithful workpeople are also entitled to pension and those who have completed 20 years' service at the Empress Mills get a special long service increment.

The above welfare activities are directly concerned with conditions inside the factory. I shall now turn to those which deal with conditions outside the factory.

II. Extra-mural Welfare Housing

Undoubtedly the most important of these is the provision of suitable housing. The Calico Mills have provided workmen's dwellings (chawls) for about 1,000 operatives in three different places. Kirloskar Bros., Ltd. (District Satara) have founded a colony at Kirloskarvad where most of their employees reside. As far as possible every workman with his family is allotted separate quarters. Every house has a garden in good condition. Electric light is provided and most of the houses have, in addition, tap water. A small rent is charged. In Cawnpore, the British India Corporation have provided very comfortable housing arrangements which have been described in Chapter V. At the Buckingham and Carnatic Mills, Madras, housing accommodation is provided at nominal charges for workmen on low pay. Extensive housing schemes are being undertaken at Jamshedpur. Reference may be made to a new venture at Jamshedpur entitled an "Hexagonal Town". The labourers employed at the works are allowed to build huts in their own style. These huts are grouped together in the form of a hexagon and several such groups have been erected. A small Christian village has also been started and a church is under construction.

✓In the main, outside welfare activities of many firms seem to have been entrusted to social agencies. The Currimbhoy Ebrahim

Amenities of life

Mills and the Tata Mills have both entered into an arrangement with the Social Service League in Bombay to provide amenities of life for their workers. In this way they have been able to secure the services of men who are whole-heartedly interested in the work. They have started educational work by providing day-schools for

half-timers, night schools and training classes for women workers. They have a Literary Society, Debating Societies, Reading Rooms and Libraries. Recreation is not neglected. Sports and excursions are arranged, a cricket club has been started, as also an amateur dramatic club. A small portable cinema has been bought and free shows will be provided. Wrestling is encouraged and gymnasiums have been opened. The economic difficulties of the workers have not been overlooked. Co-operative Credit Societies have been started in connection with both sets of mills. It is interesting to note that the women in the Reeling and Winding Departments have formed a Co-operative Credit Society of their own.

The outside welfare work for the employees of the Empress Mills, Nagpur, has been entrusted to the Young Men's Christian Association. A board of management directs these activities, half of the members of which are appointed by the Empress Mills and the remainder by the Young Men's Christian Association. Judging by the report and by a personal inspection the work is undoubtedly proceeding on right lines and is filling a much-needed want. The employees are as far as possible encouraged to build up a community life and to initiate and manage their own affairs. An Institute situated in each settlement forms a common meeting ground and "it is not an unusual sight to see the children of a family studying in the school in the evening, the mother dropping into the girls' class to see how her daughter is progressing, while the father sits in the next room reading the newspaper, talking or playing some indoor game." Lectures and entertainments are given from time to time and are well patronized. Games and sports of all kinds are encouraged and a healthy feeling of rivalry is stimulated between the different settlements by arranging competitions. The medical needs of the community are not overlooked. A qualified Indian lady-doctor gave her services gratuitously and also held a bi-weekly class for the midwives of the settlement. An eye specialist also paid periodic visits, attending to about one hundred cases during two months.

At Jamshedpur, Co-operative Credit Societies, Co-operative Stores, Grain Stores and cloth stores are all achieving a large measure of success. Institutes have been established at different centres in connection with which there are night schools, dramatic clubs and libraries. A central athletic association has been formed

and football, wrestling, base-ball and tennis are all encouraged. The Welfare Superintendent is an active member of all the various Committees entrusted with looking after the general well-being of the large community attached to Messrs. Tatas' Iron and Steel Works.

Such are some of the attempts that are being made in different parts of India to provide amenities of life for those who have to earn their living in factories. One of the

**Provision of
education**

great drawbacks from which the workers suffer is illiteracy, but this too has received

attention. The Buckingham and Carnatic Mills were the pioneers of the movement to provide education for their employees. They maintain an elementary day school for half-timers and children of the workpeople at which there is an average attendance of 500 in the morning and 500 in the afternoon. A technical school is run in connection with the day school where boys learn carpentry, blacksmith work, fitting, handloom weaving, and tailoring. There is also a night school for adult operatives and in connection with it technical lectures are given in weaving, machine drawing, electricity and other subjects. A recent report of the Government Inspector of Schools testifies to the utility of the education provided and there can be little doubt that the whole-hearted interest taken in it by the Joint-Principals has helped very considerably towards the success of these schemes. The Calico and Jubilee Mills, Ahmedabad, finding that the special educational needs of mill-workers have been overlooked, have also opened schools for half-timers. Commenting on the physique of the children who attend these schools they say : "most of the half-timers are physically unfit to work in plants." The raising of the age of admission to factories from 9 to 12 was undoubtedly a much needed reform. The British India Corporation, Cawnpore, maintain two upper primary schools for boys and girls and have in addition two night schools. Magic lantern lectures are given weekly in two settlements at which special purdah arrangements are made for the women, and prizes are given for the best essays on the lecture. At Jamshedpur there are 13 schools with 38 teachers and an average attendance of 1,250 pupils. A special training class is held for teachers and the schools are highly commended by the Government Inspector of Schools. The Empress Mills, Nagpur, contribute

Rs. 1,200 towards some schools for Mahomedans and for children speaking Marathi. They have also offered to bear the cost of a commodious building if the Municipal Committee give land in a suitable locality.

From the above account it will be seen that many employers in different parts of India are whole-heartedly interested in the welfare of their workers. The All-India Industrial Welfare Conference provided the opportunity for collecting and distributing this information and the permanent organization that arose out of the Conference should in future form a convenient centre of reference for all those interested in the welfare movement.

Before leaving this subject I propose offering some suggestions regarding the ways in which enlightened employers might develop

Necessity of Labour Records the work they have undertaken of helping **in factories** the well-being of their employees. When visiting factories both in England and in India I have been struck with the scanty records that are kept in most places regarding the workers. To my mind one of the essential factors of management lies in a knowledge of the employees. In small factories this is of course achieved, without any difficulty, but in large factories, especially where the rate of labour turn-over is high, it is essential that individual records should be kept of the workers. The advantages of such a record system have been briefly sketched by me in an article entitled Labour Records in Factories.¹ The person who is entrusted with the compilation of such records should be in sympathy with the workers and capable of eliciting the necessary information without giving any ground for complaint.

Assuming then that a factory has an individual register of its workers, the next point to which study may usefully be directed is to have a wages analysis prepared from time to time by the Wages department shewing the persons who have earned the highest and the lowest wages in the respective departments. A similar analysis should be made with regard to the time-keeping of individuals and the accident rates in the different departments. After these data have been collected enquiry should be instituted to ascertain the causes. Those who have earned high wages may have some natural aptitude for the work or may have discovered some easy

¹ Journal of Indian Industries and Labour Vol. II Part 1, Feb. 1922

and quick method of doing it. The firm will find such knowledge invaluable. On the other hand the low wages earned by others may be found to be due to defective machinery or to some slight incapacity on the part of the worker, which may admit of being rectified satisfactorily. Much inquiry has been instituted to discover the causes of individual differences in output in England and in America, but the subject has not as yet received adequate attention in India. With regard to accidents, a study of the individual accident rate will inevitably indicate certain individual peculiarities. Some persons have a much higher accident liability rate than others.¹ This being the case, and in view of the fact that compensation will now have to be paid in India, it is only sound business policy to adopt measures for the reduction of accidents to a minimum.

The question of time-keeping is very important in India. In many ways it serves as an index of the state of fatigue produced. Where wages are good, men do not stay away for trifling reasons. They do so primarily to restore the energy they have expended at their work. A careful analysis of the time-keeping of different departments will reveal those in which the strain is excessive. There are of course other causes for bad time-keeping which will come to light once a careful record is kept. The dispensary record should supply valuable data both with regard to the health of the workers and the comparative healthiness or the reverse of the various departments.

In addition every six months a table should be prepared shewing the rate of labour turn-over. If at the same time the reasons for leaving can be ascertained many a clue as to conditions which need remedying will fall into the hands of the Manager. If the analysis is carefully made he should also be able to obtain information from it which will help when he engages new workers. He should for instance be able to find out which castes of workers stay the longest and the localities from which they have been recruited.

To carry out these suggestions a person is required who will throw himself whole-heartedly into these problems. He will have endless opportunities of making factory life much more pleasant and humane than it is at present. The average Indian labourer is

¹ Report No. 4 Industrial Fatigue Research Board.

alive to any kindness. One of the reasons why he leaves one job so easily for another is because of this lack of any personal interest shewn.

I have dealt at some length with ways in which factory management may be improved. I do not propose making any further reference to the manner in which the life of a worker outside factory hours can be rendered happier and more conducive to physical efficiency, as the examples I have quoted in previous pages indicate many of the ways in which this may be done.

C ACTION BY LABOUR.

Labour in India is for the main part unorganized and so has been incapable of making any effective demands or of doing much by its own efforts to ameliorate prevailing conditions. The reasons for this have already been examined. They are in brief the instability of labour and the fact that much of it is migrant and so has only a temporary interest in conditions. In addition the illiteracy of the majority and the varied languages spoken make it difficult to find a common vehicle of expression.

The difficulties in the way of forming Labour Unions are being overcome, only very slowly. Unions can be organized more easily in cases in which some of the drawbacks just mentioned are not present in an acute form. The strongest and most stable Unions in India are those of ~~posta~~ and ~~telegraph~~ workers. This is so because most of the employees in these utility services are literate and at least partially educated, while a fair proportion of the workers belong to the domiciled European and Indian communities. Similarly a few Unions among employees in Railways and other engineering workshops have occasionally displayed remarkable signs of strength and cohesion. But at the best the Unions in India bear only a superficial resemblance to those in Europe and America. So far as I am aware, no Unions in India have built up funds for unemployment, sickness and similar benefits. They have not attempted to organize co-operative purchase. The condition of affairs among the Unions of ordinary factory workers is still more deplorable. Here also comparative success is to be noted only in specially favourable circumstances.

Thus in Ahmedabad, where the proportion of emigrant labour is comparatively small, the Unions among factory workers are in a

Unions in Bombay Presidency stronger position than in any other part of India According to the latest statistics available there are nine Unions in Ahmedabad with a total membership of 19,785 persons¹ The majority of these Unions belong to the textile industry The Unions are not factory Unions but are organized according to occupation Of these the Throstle Union consisting of 5,500 members is the largest and next come the Weavers Union and the Card room, Blow room and Frame Department Union, each with a membership of 4,000. Mrs Anusuya Sarabhai is the President of all these Unions and is undoubtedly the guiding spirit The strength of these Unions will probably be severely tested shortly. The Ahmedabad Millowners' Association have decided to reduce the wages of operatives and to declare a lockout in the event of a strike² In Bombay there are nine Unions with a membership of 24,500.³ Though the mill-workers are in the majority among factory workers they have as yet formed no effective Union. The labour conditions in Bombay which are described in detail in the preceding chapter are undoubtedly the cause of this. The Unions in Bombay are mainly railway unions, or Postal and Telegraph Unions There is also an Indian Seamen's Union and a Clerks Union, the former of which, numbering 10,000, accounts for by far the largest number of Unionists. These Unions are all practically dominated by a few outstanding men who are themselves not labourers. Mr Joseph Baptista is President of two out of the nine while Mr. Jhabwalla is Secretary of no less than five. Mr. Ginwalla is President of two and vice-President of a third.

The Trade Union Movement is even less advanced in Bengal than in Bombay. The Committee on Industrial Unrest in Bengal in 1921 state that "any organizations found among employers are of the loosest description while, except in a few special cases, such as those of the telegraph and railway workers, who are outside the ranks of ordinary industry, organized bodies of labour hardly exist."⁴ There are a number of small unions besides those

1 Bombay Labour Gazette March 1923 page 29.

2 A Strike was declared and ended in a compromise.

3 Bombay Labour Gazette March 1923 page 28.

4 Report of Committee on Industrial Unrest in Bengal in 1921, page 4.

mentioned above, the proceedings of which appear in the Press from time to time, but in the major industry of the province, namely the jute industry there do not appear to be many Unions. This is no doubt due in part to the very heterogeneous nature of the jute factory population, but it is also in part due to the fact that the jute mill workers have succeeded in enforcing their demands for increased wages without much difficulty.¹

The experience of other Provinces is very similar to that in Bombay and Bengal. Unions are formed when demands are formulated or when there is likelihood of a strike, but dissolve as soon as the strike is over. A striking example of the weak position of a Labour Union is afforded by the Bombay Tramway Union. A strike was declared by this Union in September 1922, mainly because the Company refused recognition unless the membership was restricted to the Company's own employees. The strike failed and according to the latest information "the Union has ceased its activities as a Union of Tramway employees, its members being no longer employees of the company. No present employees of the Traffic Staff of the Company, are members of the Union."²

The movement towards a federation of Unions is also in an initial stage. It is true that for the third time an All-India Trade

**Federation of
Unions** Union Congress has been held, but it still exerts comparatively slight influence on the

Labour movement in India. In Bombay a Central Labour Federation was started as a branch of the Trade Union Congress, but it was soon ousted by the Central Labour Board which under Mr. Ginwalla and Mr. Jhabwalla succeeded in bringing under its aegis the three most important Trade Unions in Bombay. There is also a Bengal Labour Federation which held two meetings in 1922 to consider the desirability of framing a constitution, but what success has attended its efforts is not known. So too in Madras a meeting was held in May 1922 to reorganize existing Unions under a Madras Central Labour Board.

The Trade Union movement is obviously in its infancy in India, but in spite of this there are signs recognizable in all the

1 Trade Disputes in Bengal by Director of Industries, Journal of Indian Industries and Labour Vol I, Part I, Feb. 1921.

2 Bombay Labour Gazette December 1922 page 25.

provinces of the awakening of labour. Gradually the feeling is growing in strength that labour must be given its just dues. The position is fraught with danger for, while combination is difficult because of the ignorance and the illiteracy of the workers, their very ignorance is a menace when there is a rupture and peace has to be secured. It is almost impossible to argue or reason with vast crowds of ignorant people whose feelings have been stirred up by treatment which they consider unjust. As a member of the Legislative Council in Bombay aptly put it "in the city of Bombay they had for some years past been sitting on the top of a volcano, not knowing when the eruption would take place." This speech was made at a meeting of the Bombay Legislative Council when a motion was brought forward recommending "the introduction of legislation at the next session of this Council on the lines of the unanimous report of the Industrial Disputes Committee."

The many drawbacks which hinder the organization of labour need to be carefully examined. Steps should also be taken at the same time to remove as far as possible legitimate grievances. The State and employers should both co-operate to achieve this end. Above all the leaders of the Indian movement should seriously consider whether, in the particular circumstances of India, it would not conduce to the strength of the organization if, instead of slavishly following the western model of a trade basis, labour were organized on the basis of industrial centres and establishments. Many of the difficulties arising from diversity of language, trade customs and habits of life are likely to be minimized thereby.

D. ACTION BY SOCIAL AGENCIES

Social agencies concerned in ameliorating the conditions of the industrial classes are found principally in Bombay, but, before dealing with them specifically, mention must first be made of the All-India Welfare Conference Organization founded in 1922. This organization, if it develops along right lines, may well become a common meeting ground for all interested in the satisfactory solution of industrial labour problems. The first Conference held in April 1922, consisting as it did of representatives of employers, workers, welfare superintendents and different Government departments, is a happy augury for the future. The scope of the subjects discussed indicates that no narrow meaning was attached to the term 'industrial welfare work.' It was taken

to comprise not only the well-being of the workers inside the factory, but also amenities of life that are provided outside working hours. The subjects connected with inside factory welfare work related to sanitation and hygiene, works committees and the duties of welfare workers. Welfare work outside the factory embraced a large range of subjects, namely education, child-welfare, trade-unionism, the spread of the co-operative movement, and housing.

Many social agencies will have to come into existence if all the recommendations made at this Conference are to prove effective. It is possible that this new organization may be the means of making the needs of the workers more widely known and thus may stimulate employers and social workers to initiate a movement to link up existing Societies with a view to supplying obvious deficiencies.

The Social Service League in Bombay, founded by the Servants of India Society, has done a great deal for the betterment of the industrial classes. There are of course numerous other societies or associations in different parts of India rendering medical aid or providing educational facilities, but only those that make the welfare of workers in mills and factories their primary concern come within the scope of this book.

To return to the Social Service League—mass education, medical relief and the encouragement of co-operative societies are among its chief objects. It has a large number of day and night schools and schools for half-timers under its management. The bulk of the scholars are boys, as women and girls do not yet seem to be making much use of the opportunities offered. Medical relief is given at a general dispensary and at a dispensary for women and children, founded by a charitable gentleman in memory of his wife, and both of these are well patronized.

The League has recognized that the growth of the co-operative movement among factory employees is the best means of improving their economic position. Indebtedness is one of the chief difficulties that a factory-worker has to face. The causes of this have already been explained. To combat the present state of affairs, the League has founded no less than 68 co-operative credit societies. In addition the League has under its supervision three co-operative stores. A co-operative club, which will give its members the oppor-

tunity of doing social work during their leisure hours, is the latest venture.

The chief centres of the activities of the League are the Patel Settlement, the Currimbhoy Ebrahim Workmen's Institute and the Tata Institute. In addition funds have been collected for a Central Workmen's Institute which has been opened and serves to focus and co-ordinate social and educational activities undertaken in the interests of industrial workers. Two of the Institutes mentioned above are supported by the firms connected with the mills for whose benefit they are maintained. Education and medical and recreational facilities are all provided as well as co-operative credit societies and stores.

The Seva Sadan Society in Bombay and Poona is intended to train women for social service and to give social, medical and educational help to women of the poorer classes. Arrangements are made for hospital visiting, for giving help in confinement cases and for visiting the quarters of the poor. This Society is, in short, the sister society of the Servants of India, but has much smaller funds.

The Bombay Presidency Women's Council forms a convenient link for the various women's social societies centred in Bombay. This Association is interested in all movements which promote the well-being of women. Thus, it strongly supported the movement for the enfranchisement of women and was also prominent in demanding that an inquiry should be made into the moral condition of Bombay.

The Depressed Classes Mission Society of India with its headquarters in Bombay is primarily concerned with the social regeneration of the untouchable class, but, as a great many of this class are found in factories, it is brought into touch with industrial workers and their difficulties.

Besides the Bombay Social Service League there are Leagues also of a similar kind in Bengal and in Madras. The League in Bengal seems to be chiefly interested in medical and educational problems and has not as yet tackled the industrial problem. Its activities centre round lectures which are given by its workers on sanitation, education, agriculture and co-operative work. The League in Madras was founded to stimulate and organize social work. It maintains schools, starts co-operative societies and gives

medical relief to all who stand in need of it, but work among the industrial classes *per se* has not been included among its chief activities.

The Young Men's Christian Association, though it has a vast range of social activities, has not yet singled out industrial workers for any special form of help except at Nagpur. In that city the Y. M. C. A. has been entrusted by the management of the Empress Mills with the task of looking after the welfare of their employees outside the factory. A very useful piece of work has, in this way, been started and is being carried through with enthusiasm by those responsible for its success.

This brief sketch of the agencies connected with industrial welfare work shews very clearly how much need there is for a much farther advance along these lines. Undoubtedly the chief needs of the industrial classes are what all these Societies in various ways are trying to provide: education, medical aid and co-operative credit and stores. The municipalities will not, for a long time yet, have the necessary funds to make any adequate provision for these purposes. A central organization like the All-India Welfare Organization may well endeavour to obtain the help of employers for funds necessary to train workers for these efforts in large industrial centres. Enlightened employers will probably be ready to assist in activities which are likely to promote the stability, efficiency and contentment of their labour force.

CONCLUSION

Before closing this chapter it may not be out of place to examine the justification for the demand for suitable working conditions and to see how that demand can best be satisfied. It is now coming to be generally recognized that there can be no permanent cure for industrial ills until factory conditions are brought into line with the wishes and aspirations of the workers. It is true that this can be effected only by a fundamental change in the attitude of the average employer towards his workers. The justification for demanding the change rests on the fact that the supply of goods to the community is a social function, carrying with it the obligation of seeing that those members of the community, who are engaged in producing the goods, receive just and equitable treatment. This obligation rests not only on the Employer but also on the State, and is in fact the justification for State-interference in industry. Little will, however, be effected until the workers themselves see that this principle receives due recognition.

Enlightened employers have been among the first to realise the need of a new spirit in industry. Mr Seebohm Rowntree, in his article on "Labour and Capital after the War" goes so far as to say that labour must be regarded "rather as a partner than as a servant," and that its co operation with the management "practically on equal terms" must be sought "in determining the conditions of work in any industry."¹

The Whitley Committee, which was convened, by the Government in England "to make and consider suggestions for securing a permanent improvement in the relations between employers and workmen", came to a similar conclusion. The elaborate machinery of National Councils, District Councils and Works Committees recommended by that Committee, was mainly devised to "secure to the work people a greater share in and

¹ Labour and Capital after the War, edited by S. J. Chapman. Article X by B. Seebohm Rowntree.

responsibility for the determination and observance of the conditions under which the work is carried on." 1

The philosophic justification for this change of attitude to the workers has been clearly expressed by Mr. R. H. Tawney on more than one occasion. Writing in 1917 2 he discusses at length the implications that are involved in the acceptance of the principle that industry is a social function. He points out the need of a radical transformation in the existing state of affairs where persons are employed "in the service of things and of the owners of things" instead of things being employed in the service of persons. He gives practical suggestions as to how this transformation can be effected without a drastic revolution.

These ideas, which are permeating the thought of the present day, will undoubtedly affect the relations between employers and employed, even in countries where they may at first be received with scepticism. It is desirable, therefore, that those who are now in positions of authority should endeavour to see how far they can bring their views on management into conformity with these new ideals. Although the problem does not admit of an easy solution, especially in a country where management has already a sufficiently difficult task, yet all efforts that help in that direction should be welcome.

A brief sketch has already been given of what is being done by the State, Employers, Labour and Social Agencies to ameliorate the conditions of the working classes. In the light of what has been stated above, I propose to examine what still remains to be done in order that Labour may undertake a proper share in bringing about industrial stability. The chief defect of existing methods seems to me to lie in the fact that both Employers and the State have been inclined to adopt too "paternal" an attitude towards Labour.

The Trade Union Movement is still in its infancy in India, and while everything should be done by Labour to develop and strengthen this movement on right lines, there are certain primary needs of the workers which require immediate attention. There

1 First Report of the Committee of the Ministry of Reconstruction on Relations between Employers and Employed, dated 8th March 1917.

2 Labour and Capital after the War, edited by S. J. Chapman. Article V by R. H. Tawney, page 93 *et seq.*

is general scope for what might be called a "Labour Movement", the object of which should be to devise and cultivate means of self-help and co-operation. Those who direct the movement should endeavour to see that workers when they enter industrial employment are not stultified in their efforts by initial or insuperable difficulties. What the majority of workers need is some means of securing "cheap credit" on personal security only, some place where they can buy goods and inexpensive food and decent housing arrangements which will permit them to live in comfort with their family. These needs are, to some extent, met by the existing co-operative credit societies, co operative stores and housing schemes, but at present only a very small fraction of the workers benefit by them. All possible steps should be taken to spread this co-operative movement among industrial workers, as it will undoubtedly obviate many of the disadvantages from which they suffer at present. Not only will it be successful in this direction but it will also itself create and stimulate the demand for adult education, which is yet another great need of the working classes and is one of the causes of the present weakness of their position. Further, the spread of education will help men to realise that combination and harmonious co-operation are essential for any measure of improvement. It will also enable them to take steps for combination, and as a natural result of all these factors there will grow up a genuine Trade Union Movement.

The great industries of India are at present hampered by the fact that they are dependent for their labour supply on an ill-organised, illiterate mass of workers with a low standard of living. A consequence of these facts is that labour is inefficient and difficult to handle. Were it organized, educated and imbued with the desire for a higher standard of living, not only would the output increase enormously, but there would be mutual understanding and respect in place of the indifference which is a characteristic feature of the present situation.

There are, of course, certain lines of action which, affecting as they do the lives of the community generally, cannot be undertaken by a section of the community. For these things, Labour must rely on State action. Thus it is for the State to provide general education and to give facilities for adult education. The State must also remain responsible for the health of the

community. Similarly, the provision of suitable transit facilities and the inspection of all places where work is carried on are also functions of the State.

Employers will still have wide functions in bringing about the betterment of conditions of industry. Unless they are willing to give a sympathetic hearing to the wishes of their workers, it will be impossible to establish satisfactory relations or to achieve permanent results. A measure, to which reference has already been made and which has met with a great deal of success in England in this connection, has been the establishment of a "Welfare Department" as part of the works organization. It is the function of this Department to help the workers to realise that the Management care for something more than output and the Management are, strange though it may seem, frequently repaid by increased output. Another measure, which has also succeeded in bringing about better relations, is the establishment of "Works Committees." By means of these Committees, workers are given a responsible share in determining the conditions of their work.

The most useful functions which social agencies can discharge in this matter is propaganda work. They should get a first-hand knowledge of the conditions under which the great industries of the country are carried on. Inquiry should also be made, among other matters, into the housing conditions, the unsatisfactory arrangements for the supply of food, the lack of medical aid, the difficulty of getting legal advice. Furnished with this knowledge, they should proceed to make the results of their inquiries as widely known as possible. After they have secured a measure of publicity and have interested those who have the power to help, they should proceed to help labour to overcome the particular difficulty with which it may at the moment be confronted.

These concluding suggestions are merely a tentative attempt to help in the solution of the labour problem. The solution rests jointly with Labour, Employers and the State. A clear understanding of the difficulties with which each one of these parties is confronted is first of all necessary. The infusion of a new spirit in industry and the realisation on the part of employers and workers that they are performing "a social function" carrying with it certain rights and entailing certain obligations, will also undoubtedly help very considerably in the ultimate solution.

Tabular Statement Showing Growth of Cotton Trade and Exports to Foreign Countries

	18541	1875-76 ²	1881-82 ⁸	1890-91 ⁸	1900-01 ⁴	1920 ⁵
I Mills						
No. of Mills	1	47	62	126	168
" Looms	***	9,139	14,386	23,795	*****	249 ***
" Spindles	**	1,100,112	1,551,000	3,197,700	****	****
" Persons employed ...	*****	*****	*****	(over) 112,000 persons	*****	298,190 persons

¹ Review of Trade of British India, with other countries 1878-79, page 31
² " " and Navigation of British India 1875-76, page 25

THE JOURNAL OF CLIMATE

³ " of India 1890-91, pages 34,40

Annual Report on the Working of the Indian Factories Act 1900-01
1920 Statements I and II

Tabular Statement Showing Growth of Cotton Trade and Exports to Foreign Countries

	1854-55 ¹	1875-76 ²	1881-82 ³	1890-91 ⁴	1900-01 ⁵	1920-21 ⁶
II Exports						
COTTON						
Raw	Quantity ... Value ...	173,780,192 lbs £2,428,764	5,009,788 cwt ^s Rs. 13,27,89,635	5,627,453 cwt ^s Rs. 14,93,59,595	5,914,000 cwt ^s Rs. 16,60,27,760	3,576,000 cwt ^s Rs. 10,12,74,007
Yarn	Quantity ... Value ...	6,228,511 lbs Rs. 26,69,514	30,786,304 lbs Rs. 1,36,88,360	169,275,000 lbs Rs. 6,54,33,640	118,081,000 lbs Rs. 4,17,05,891	83,000,000 lbs (3)
Piece-goods	Quantity ... Value ...	..... Rs. 39,64,722	29,586,331 yds Rs. 64,16,800	67,659,000 yds Rs. 1,15,92,760	69,342,000 yds Rs. 1,43,32,297	1464 million yds & 522 " "(b) Total value (a & b) 18,27 lakhs

¹ Review of the Accounts of the Trade and Navigation of India 1874-75, page 52² Memorandum reviewing the accounts of Trade and Navigation of British India 1875-6, page 24 and page 25³ Review of the Maritime Trade of British India 1881-82, pages 54, 55, 66 and 57⁴ Review of Trade of India 1890-91, pages 34, 37, and 39 and 1891-92, page 29⁵ " " " 1900-01, pages 23 and 27⁶ " " " 1920-21, pages 15 and 19

II
Tabular Statement Showing Growth of Jute Trade and Exports to Foreign Countries

I MILLS	18541	18752	1881-823	1890-918	1900-014	19205
No. of Mills	***	... None before 1857	12	19	24	38
" " Looms	***	3,900	5,464	7,963	76
" " Spindles	"	87,071	159,115	.....
" " Persons employed	60,739 persons	.....	282,728 persons

1 Review of Trade of British India with other countries 1878-79, page 32
 2 " " and Navigation of India 1874-75, page 59

3 " " of India 1890-91, page 41

4 Annual Report of the Working of the Indian Factories Act 1900
 5 " " " " " " 1921, Statements I and II

Tabular Statement Showing Growth of Jute Trade and Exports to Foreign Countries

		1875-76	1881-82	1890-91 ³	1900-01 ⁴	1920-21 ⁵
II Exports		—	—	—	—	—
JUTE						
Raw { Quantity	... ... Value ...	5,206,570 cwt ^s Rs. 2,80,53,396	7,510,314 cwt ^s Rs. 5,03,03,023	11,986,000 cwt ^s Rs. 7,60,20,100	12,414,000 cwt ^s Rs. 10,86,77,562	2,440,000 cwt ^s 16,36 lakhs
Manufacture ¹ :						
Bags No.	... ... ... Value Rs.	19,253,250 44,23,603	42,072,819 1,08,40,813	98,749,000	202,908,199	534,000,000 23,91 lakhs
Cloth yds	... ... Value Rs.	{ 8,532 pieces 8,92,065 yds 4,47,542	988,796 1,19,455	29,854,000	365,214,990	1,353,000,000 28,54 lakhs
Rope and twine	... Value Rs.	1,404 cwt ^s (rope, twine etc.) 15,668	1,372 cwt ^s 12,194	Total value 2,48,19,610	Total value 7,86,46,012	160,000 cwt ^s 54 lakhs

1 Review of Trade of British India with other countries 1875-76, pages 31 and 32

2 " Marfume Trade of British India 1881-82, pages 61-66

3 Review of Trade of India 1890-91, pages 36, 40 and 41

4 " " 1900-01, pages 24, 27

5 " " 1920-21, pages 15, 17

INDEX

A

Accidents, and compensation, 167-169, 182; and need of ambulance rooms in factories, 20, 160, inquiry into, 161, 168; treatment of, 182.

See also Workmen's Compensation. Adults, hours of work limited in factories, 158.

Agra, conditions of land tenure in, 89.

Agricultural areas, and congestion, 13.

Agricultural implements, import of, 9, 32.

Agricultural labourers, and Conference at Geneva, 161, and factory-life, 116; and subsidiary employments, 3, 4, causes of migration of, 12-15, 39, causes of mobility of, in Madras, 92, conditions of work of, 161.

See also Labourers.

Agricultural machinery, and small holdings, 13; import of, 9, 32.

Agriculture, and industrialisation, 12, and Industrial Revolution, 30-32, and irrigation, 12, and unemployment in India, 110, in :—(a) Bengal, 42, (b) Bihar and Orissa, 52, (c) Bombay Presidency, 47, 81, (d) Central Provinces, 95, (e) Madras, 62, 63, (f) Punjab, 99, (g) United Provinces, 57; migration from, 12, 13.

See also Departments of Agriculture.

Ahmedabad, demand for labour in, 79; industrial importance of, 78, labour-supply of, 83, 84, pro-

portion between the sexes in, 84, prosecutions taken up in, 126; reduction of wages in, 169, Unions in, 189, 190, wages paid in textile factories in, 123, 124.

Aluminium industry, fostered by State in Madras, 8.

Ameliorative Measures; *see* Chapter VI, 153-199.

Amenities of life, absence of, in coal-fields, 147, 148, and tea-garden estates, 150, provided by employers in India, 184, provided for factory workers in Madras, 141.

Anderson, Dame Adelaide Mary, 163n.

Arbitration and conciliation, proposed legislation for, in India, 170.

See also Industrial Unrest and Industrial Disputes.

Art, industries connected with, 5, 35.

Artisans, castes of, in.—(a) Bengal, 41, 42, (b) Bihar and Orissa, 54, (c) Bombay, 47, (d) Central Provinces, 66, (e) Madras, 63, (f) United Provinces, 58; village, 4.

Assam, conditions in tea-gardens in, 148-150, labour in, 68, labour laws in, 98; need for imported labour in, 97; numbers industrially employed in, 97, tea-garden estates in, 97.

Assam Labour Inquiry Committee, opinion of, in relation to Workmen's Breach of Contract, 174; report of, 98, 148.

Azamgarh, 56, 57.

B

Barnes, Dr, 120, 127.

Benares, 5.

Bengal, castes employed in:—(a) jute-mills in, 77, 78, (b) mines in, 75, (c) tea-gardens in, 77, causes of scarcity of local labour in, 71; death rate in, 109, defective system of education in, 73, demand for agricultural labour in, 73, demand for good conditions of employment in, 74, dependence upon income from land in, 71, inquiry by Dr. Curjel into working conditions for women in, 159, extent of rural industries in, 43; geographical features of, 39-40, labour-supply in, 71-78, laxity of joint-family system in, 73, numbers industrially employed in, 128, organized industries in, 70, 128; population of, 39; proportion of different castes employed in coal, jute and tea in, 76, ravages of malaria in, 73; rigours of caste-government in, 43; Table showing birthplace of workers in, 72, Table showing caste or race of workers in, 76, Trade-Guilds in, 45; Trade Unions in, 190; typical villages in, 40, village occupations in, 42, 43.

Bihar and Orissa, caste-government in, 55, causes of migration from, 85, geographical features of, 52; local supply of labour in, 85, organized industries in, 84, 85, principal castes in, 53, proportion of castes in different industries in, 87; supply of labour in coal and iron industries in, 85, Table showing birthplace of workers in, 86, typical villages of, 52, village occupations in, 54.

Blacksmiths, in:—(a) Bengal, 42, (b) Central Provinces, 97, (c) United Provinces, 58.

Blunt, E. A. H., 6.

Bombay, caste-customs in, 48, 49, 50; comparison of conditions in Bengal and in, 79; death rate in, 109, 121; different streams

of immigration to, 79; districts which supply labour in, 79; extent of migration to, 79; extent of rural industries in, 72; factory population of, 79, geographical features of, 46, local distribution of organized industries in, 78, organized industries in, 78, 117, principal castes of, 47-50; proportion of different castes among workers in, 82; sources of labour-supply for, 79-81; Table showing birthplace of workers in Province of, 80, Table showing religions and castes of workers in Province of, 82; Trade Unions in, 190; typical caste-customs in, 48-50, typical villages in, 47, village occupations in, 48.

Bombay City, arrangements for meals in mills in, 127, causes of instability of labour in, 88, 121, 122; comparison with London, 118, death rate in, 121; description of work in textile factories in, 123; disparity between the sexes in, 11, 83, drainage system of, 119, effect of over-crowding in, 119; employment of women and children in, 124, inquiry by Dr. Barnes into conditions in, 120, growth of, 10, 27, 118, housing conditions in 108, 118; industries of, 78, 117; labour-supply of, 83, 122; measures for improvement of, 11, 121; number of persons per acre in, 108, 118, rate of infantile mortality in, 109, 119, 121, situation of factories and mills in, 121, Trade Unions in, 190; wages in textile factories in, 123, 124.

Bombay Factory Commission, appointed in 1875, 154.

Bombay Presidency Workmen's Council, 194.

Burma, emigrants to, from Madras, 92.

C

Calcutta, average death rate in, 130; disparity between the sexes in, 11, 129; growth of, 10, 27; health conditions in, 130; housing conditions in, 108; immigrants in, 74, 129; industries in, 40, 70, 128; measures for improvement of, 11; numbers industrially employed in, 128; population of, 10, 129; rate of female mortality in, 130; rate of infantile mortality in, 109, 130.

Caste, customs in Bombay, 48-51; government in Bengal, 43-45; government in Bihar and Orissa, 55; government in Madras, 64; importance in village of, 28.

Caste-panchayat, definition of, 38, 44; powers of, in the United provinces, 60, 61.

Castes, employed in organised industries in —(a) Bengal, 75, 76, 77, 78, (b) Bihar and Orissa, 87, (c) Bombay, 81, (d) Central Provinces, 96, 97, (e) Madras, 94, (f) Punjab, 99, (g) United Provinces, 90; principal, in Bengal, 41, 42; principal, in Bihar and Orissa, 53; principal, in Bombay, 47; principal, in Central Provinces and Berar, 66; principal, in Madras, 62, 63; principal, in United Provinces, 57, 58.

See also Tables, and Blacksmiths, Cultivators, Graziers, Leather-workers, Oil-pressers, Priests, Tribes, Weavers.

Cawnpore, compensation for accidents of factory employees in, 182; factory workers in, 90; growth of, 10, 27; housing conditions in, 109, 139, 184; medical aid for factory employees in, 182; provident and pension funds for factory employees in, 183, 184; provision of education for factory employees in,

186; Welfare Superintendents in, 139, 140.

Central Provinces and Berar, castes in organized industries in, 96, 97; distribution of industries in, 96; geographical features of, 64, 65; migrants to, 96; organized industries in, 95, 96; principal castes of, 66; rural occupations and industries in, 66, 67; sources of labour supply in, 96.

Ceylon, South Indian labourers in, 92.

Chatterjee, A. C., 33, 58.

Chatterton, Sir Alfred, 63, 64.

Children, accidents to, in factories, 137; age of employment of, in factories, 154, 156, 157, 158; crèches for, 183; disadvantages arising from employment of, 125, 126; employment of, in Bengal Jute Mills, 133, 136, 137; employment of, in Bombay textile factories, 122, 124, 125; hours of work of, restricted in factories, 155, 156, 158; need of further legislative protection for, 160; not allowed to work in Indian Mines, 165; presence in factories of small, 127.

See also Indian Factories Acts.

Clow, A. G., 153n.

Coal-mines, amenities of life in, 147; and education of miners, 148; castes employed in Bengal, 75, 143; and Table on page 76; development of, 24; distinctive conditions in, 144; employment of women in, 147; housing arrangements in —(a) Bengal, 145, (b) Bihar and Orissa, 146, (c) Central Provinces, 146; in Bengal, 40; in Central Provinces, 96; in Punjab, 99; labour supply of, in Bihar and Orissa, 85, 87; medical aid in, 147; prohibition of employment of children in, 105; Table showing

- birthplace of miners in Bihar and Orissa, 86
- Coffee plantations, in Madras, 92.
- Colleges, for agriculture, 32.
- Commission, appointed to consider working of factories in the Bombay Presidency in 1884, 155, 167, appointment in 1890 of Indian Factory, 155, appointment in 1908 of Indian Factory Labour, 156; Bombay Factory, of 1875, 154, Indian Famine, 7; Indian Fiscal, 8, Indian Industrial, 7, 8, 12, 21, 33, 164.
- Committee, appointment in Bombay of Technical and Industrial, 178; appointment in 1884 of a Medical, 155, appointment in 1906 of Textile Factories Labour, 156; Assam Labour Inquiry, 148-150, 174, Indian Sugar, 31, on Industrial Disputes in Bombay, 112, 170, 171, 172; on Industrial Unrest in Bengal, 170, 171, 172, Whitley, 196.
- Conciliation Court, formation of, 171.
- Co-operative Societies, for industrial workers, 176, 185, 198, in Jamshedpur, 185, managed by Social Agencies in India, 193, 194.
- Co-operative Stores, for industrial workers, 175, 176.
- Cotton, acreage of, in India, 30; export of, from India, 9, import of manufactured, 8, in Gujarat, 46; production of, in India, 6; research, 31.
- Cotton, C. W. E., 63, 64.
- Cotton-ginning and pressing mills, employment of women and children in, 124, in Madras, 91; in Punjab, 98, in the United Provinces, 58, 88.
- Cotton industry, centred in Bombay, 117; growth of, 22, 23, hampered by slow development of coal and iron, 6.
- See also* Table I in Appendix.
- Cotton mills, comparative cost of erection of, 23, dispensaries in, 20, employment of women in, 124, in Bombay, 69, 121; in United Provinces, 88, 90; scarcity of, in Bengal, 128.
- See also* Textile Factories and Textile Industries
- Cotton spinning, by hand and attempts at improvement, 3, 33, in Bihar and Orissa, 54, in Bombay, 48, in United Provinces, 59.
- Cotton weaving, by hand, 3, 33; in Bihar and Orissa, 54, in Bombay, 48, in Madras, 64, in United Provinces, 59.
- Crèches, for factory children, 183.
- Crops, area devoted to, 30, improved varieties of, 12, 31; shifting of, 30.
- Cultivators, castes of, in—(a) Bengal, 41, (b) Bihar and Orissa, 53, 54, (c) Bombay, 47, (d) Central Provinces, 66, (e) Madras, 63, (f) United Provinces, 58, in Bombay factories 81, 82; of Bihar and Orissa, 87; of United Provinces, 90; of Madras, 95.
- See also* Traditional Occupations.
- Curjel, Dr. D. F., 159n.

D

- Departments of Agriculture, work done by, 12, 31-32.
- Departments of Industries, and hand-loom weaving, 34, establishment of, in India, 8, Provincial, 8.
- Dispensaries, 48, 49.
- Dispensaries, 20, 132, 137.

E

- Education, and factory employees in Madras, 142; lack of, 198; need for adult, 198; need in India of provision for, 176, need of, in coal-fields, 148; provided by employers in India, 184, 186, undertaken by Social Agencies in India, 184, 193, 194, 195.

Education Acts, in Provinces in India, 177.

Employers, 17, 111, 114, 115, 197; and extra-mural welfare work in India, 184-189; and housing, 181, and intra-mural welfare work in India, 181-184, and technical education, 179, and Welfare Conference, 192, functions of, 199; in England, 104.

Employment, conditions of, Chapter V, 101-152; factory work and stability of, 110, new avenues of, 15, 16.

England, 5, 6, 22, 69, 101-106, 109, 110, 112, 113, 114, 115, 116, 117, 153, 167.

See also Industrial Revolution.

Exports, comparison of, in 1878 and 1921, 86; hindered by lack of good communications, 9, other, 9, two most important, 9, value of, in 1853 as compared with 1877, 10, value of, in 1919-20, 8.

F

Factories, advantages enjoyed in India by employees in, 116, and medical aid, 20; comparison between conditions in English and Indian, 112-116; deficiencies in existing conditions in, 20; difficulties of employees in, 17, 18; difficulties of management of, in India, 18, effect of work in Indian, on family-life, 107, 108, effect of work in Indian, on health, 108; general features of life in, in India, 107; growth of, in India, 6, 16, 26; ignorance of conditions in, 111, lack of demand for better conditions in, 19; memorandum by Mr. Jones relating to, 155, need of appointing women inspectors of, 114, 163; need of increasing staff of inspectors of, 114, 163, Table showing number of, not inspected, 162.

See also Indian Factories Acts and Ventilation.

Factory legislation, account of, 153-161; history of in:—(a) England, 153, (b) India, *153; main problems relating to, 154; probable trend of future, 159.

Federation of Trade Unions, 191.

Food Industries, 34, 35, 43, 48, 88, 94, 92, 95.

Fremantle, S. H., 70.

G

Gandhi, 33,

Graziers, 42, 47, 53, 58, 66, 90.

H

Harrison, A., 153n.

Health, administration in India of Public, 175, case of factory-worker broken in, 116, effects of factory-life in India on, 108; effects of Industrial Revolution in England on, 101, enactments relating to, 157; importance of, 164; lack of data relating to, 110, need for inquiry into questions of, 115, of factory operatives, 163; restored by return to agriculture, 110.

Health-service, need of a Government Industrial, 163; need of appointment of medical women in, 164.

Hindus, 41, 47, 53, 57, 63, 65, 73, 94.

Holdings, 3, 13, 81, 87, 90, 92, 111.

Holyas, 49, 50.

Housing, and employers, 181; for industrial workers, 180, in Cawnpore, 100, 139, in coal mines in:—(a) Bengal, 145, (b) Bihar and Orissa, 146, (c) Central Provinces, 146; in Bengal Jute mills, 138, in large industrial centres, 108, 118, in the tea-gardens in Assam, 149, need of inquiry into, 199, provided by contractors, 113; provided by employers in India, 184.

Howrah, 27, 128, 131

Humidification, of factories, 158, 159.
Hutchins, B. L., 153n.

I

Imports, hindered by lack of good communications, 9; value of, in 1853 as compared with 1877, 10, value of, in 1919-20, 8.

Indian Factories Acts, 16, 154, 155, 156, 157, 158.

Indian Factory Commission of 1890, 155.

Indian Factory Labour Commission of 1908, 156.

Indian Famine Commission, 7.

Indian Fiscal Commission, 8.

Indian Industrial Commission, 7, 8, 12, 21, 33, 164.

Indian Sugar Committee, 31.

Industrial Disputes, need of machinery for prevention of, 172; number and extent of, in India, 172, report of Committee on, in Bombay, 170-172.

Industrial Revolution, and agriculture in India, 30-32; and effects in England, 101-105, and rural life in India, 28, 29, and village-industries in India, 33-36; beneficial effects of, in England, 105; general effects of, 36; in England, 1, 21, 69, 101; in India, 1, 69, 106; movement in England to counteract effects of, 103-105.

Industrial Surveys, 7, 33, 58, 66.

Industrial Unrest, Report of the Committee on, in Bengal, 170, 171.

Industrial Workers, 37, 47, 90, 96, 97.

See also Tables.

Industries, Departments of, 8, 34; growth of power, 22-24; pioneered by the State, 8, rise of modern, 5, 6.

See also Organized industries, Rural industries and Textile industries.

Inspectors:

See Factories.

Insurance, by State in England, 104, 113.

International Labour Conferences, 158, 159, 161, 165.

Iron, development of, in India, 25; importation of, 6, 8, in Bihar and Orissa, 85.

Iron and Steel Works, 84, 85, 86, 87.

J

Jack, J. C., 40, 41n.

Jamshedpur, 84, 184, 185, 186.

Joint family-system, 13, 14, 15, 41, 73, 92.

Jute, 6, 9, 30, 31, 40, 74.

Jute industry, growth of, 23, 24 and Table II in Appendix, hampered by slow development of coal and iron, 6, in Bengal, 70, 128.

See also Jute Mills.

Jute mills, composition of labour-force in, 69, 74, 87, 132, 133, 143, conditions in, 132; employment of women and children in, 133, 135, hours of work in, 135; housing in, 138, in Howrah, 131; in 24-Parganas, 131; meals in, 137, medical aid in, 20, 137; nature of work in, 133, 135; numbers employed in, 128; profits made by, 136; shift system in, 133, 134; wages and methods of payment in, 135, 136; workers in, 69, 77.

See also Curjel and Tables.

K

Kols, 49, 50.

Kunbis, 50, 66,

See also Cultivators.

Kydd, J. C., 153n.

L

Labour, and improvement of working conditions, 189-191, causes of migration of, to industries, 12-16; causes of scarcity of local, in Bengal, 71; effect of Industrial Revolution on mobility of, 29, inefficiency of Indian, 179, instability of Indian, 18, 121, 164, 181,

mobility of, 10, need of an employment agency for supply of, 113.

See also Labour-demand and Labour-supply.

Labour-demand, in—(a) Assam, 97-98, (b) Bengal, 69-78, (c) Bihar and Orissa, 84-87, (d) Bombay, 78-84, (e) Central Provinces, 95-97, (f) Madras, 91-95, (g) Punjab, 98-100, (h) United Provinces, 87-90.

Labour-Exchanges, 104, 112.

Labour-Office, 128, 170.

Labour-records, 187.

Labour-supply, in—(a) Ahmedabad, 83, 84, (b) Assam, 97, (c) Bengal, 71, (d) Bihar and Orissa, 85, (e) Bombay, 79, (f) Bombay-city, 83, (g) Central Provinces, 96, (h) Madras, 92, (i) Punjab, 99, (j) Sholapur, 84, (k) United Provinces, 90.

Labour turn-over, 18, 121, 164, 181, 188.

Labourers, 3, 41, 47, 54, 87.

See also Agricultural Labourers.

Land, 2, 3, 71.

Land-tenure, in—(a) Bengal, 2, 71, (b) Bihar and Orissa, 2, (c) Bombay, 2, 81, (d) Central Provinces, 96, (e) Madras, 2, 3n, (f) Punjab, 2, (g) United Provinces, 2, 89.

Leather-Industry, 8, 59, 67.

Leather-workers, 4, 13, 39, 42, 53, 58, 66, 90.

Legislation, enforcement in India of labour and factory, 114, 162, need for, in relation to other organized industries, 161, probable trend of future, 159, progress of labour, in India, 114, proposed, for Arbitration and Conciliation, 170; proposed, for Trade Unions, 169; relating to Factories, 153-158.

See also Factories Legislation and Mines Legislation.

Low, Sir Ernest, 66,

M

Machinery, 5, 8, 9, 25, 32.

Madras, caste government in, 64; causes of migration of labour from, 92, causes of retarded industrial development of, 91, death rate in, 109; geographical features of, 61, 62; local supply of labour in, 92, population of, 91; principal castes in, 62, 63; principal organized industries of, 91, 92; proportion of different castes in industries in, 94, 95, Table showing religion or race of workers in, 93, typical villages in, 62; village occupations and extent of rural industries in, 63, 64.

Madras-city, 10, 27, 109, 141, 142, 143, 186.

Mahars 48, 49, 66, 81, 96.

Mahomedans, 41, 47, 53, 57, 62, 73, 77, 90.

Maloney, T., 159n.

Marten, J. T., 96.

Maternity benefits, 113, 114, 120, 140, 159, 182, 183.

Medical aid, 20, 125, 137, 140, 147, 149, 160, 174, 182, 199.

Medical Committee, 154.

Medical inspectors, 114.

Metal industry, 70, 78, 88, 91.

Mines, description of, in Bihar and Orissa, 84, 85, growth in number of, 16; hours of work restricted in Indian, 165, measures to safeguard health of workers in, 166; no child allowed to work in an Indian, 165, numbers employed in, 17, 70, 85, 95, 166, possible restriction of employment of women in, 166.

See also Coal-Mines, Iron, and Mines Legislation.

Mines Legislation, in India, 16, 24, 165, 166.

Mining Settlement Fund, 166.

Malony, J. C., 61, 62.

N

Nagpur, 10, 27, 140, 186, 187.

O

Occupations. *See* Traditional Occupations and Villages.

Oil-pressers, 42, 53, 54, 58, 67.

O'Malley, L. S. S., 131.

Organized industries, conditions in non-factory, 161, in :—(a) Bengal, 70, (b) Bihar and Orissa, 84, 85, (c) Bombay, 78, (d) Central Provinces, 95-96, (e) Madras, 91-92, (f) Punjab, 98, 99, (g) United Provinces, 87-89, need for legislation for non-factory, 161.

Oudh, 89, 90.

P

24-Parganas, 131.

Partabgarh, 56, 57.

Population, 13, 28, 89.

Priests, 41, 47, 53, 54, 58.

Provident and Pension Funds, 184.

Public Health Administration, 175.

Punjab, 68, 98, 99.

R

Railways, and agriculture, 29 ; and food supplies, 12 ; and labour, 10, 16, 151 ; and mobility of labour, 29 ; increasing import of rolling-stock for Indian, 8, India dependent on importation of rolling-stock for her, 5, 25.

Railway works, 84, 88, 95, 98, 129.

Risley, Sir Herbert, 43.

Rowntree, B. Seebohm, 104, 196.

Rubber estates, 94, 151.

Rural Industries, in :—(a) Bengal, 42, 43, (b) Bihar and Orissa, 54, (c) Bombay, 48, (d) Central Provinces, 66, 67, (e) Madras, 63, 64, (f) United Provinces, 58, 59, 60.

S

Salt mines, 99.

Servants of India Society, 115, 180, 193.

Seva Sadan Society, 194.

Shrras, G. Findlay, 123n.

Slater, Dr. Gilbert, 3n

Social Agencies, 104, 192, 193, 194, 195, 199.

Social Service Leagues, 184, 193, 194, State, action taken by, for improvement of working conditions, 153-181; industries pioneered by, 8.

Sugar, 9, 34, 59.

T

Tables —(1) showing birthplace of skilled and unskilled workers employed in the province of :—(a) Bengal, 72, (b) Bihar and Orissa, 86, (c) Bombay, 80.
 (2) showing caste or race of skilled and unskilled workers employed in.—(a) Bengal coal mines, jute mills and tea-gardens, 76, (b) Bombay, 82, (c) Madras, 93.

Tawney, R. H., 197

Tea-industry, amenities of life in Assam, 150, caste or race of workers in the, in Bengal, 76, 143, 144 ; description of workers in Bengal, 77, housing conditions in the, 149, in Assam, 97, 148-150, in Ceylon, 92, medical aid in the, 149, numbers employed in —(a) Bengal, 70, (b) Madras, 91, 151, recruitment of labour for Madras, 151, Report of Assam Labour Inquiry Committee into conditions in, 148-151 ; situation of, in Madras, 92, wages in Assam, 150.

Technical Education, 178, 179.

Technical and Industrial Education Committee, 178.

Textile Factories, arrangements for meals in Bombay, 127, de-

INDEX

Description of, in :—(a) Bombay, 122,
(b) Madras-city, 141, hours of work
in Bombay, 123, proportion per
women in, 122, restrictions placed
on employment of —(a) adults,
157, (b) children, 157; wages in
Bombay, 123, 124.

See also Cotton Mills and Jute
Mills.

Textile Factories Labour Committee,
156.

Textile industries, in :—(a) Bengal,
43, 69, 70, (b) Bihar and Orissa,
54, (c) Bombay, 48, 78, (d)
Central Provinces, 66, 67, 95, (e)
Madras, 63, 91, (f) Punjab, 98,
(g) United Provinces 58, 87, 88.
See also Cotton Mills and Jute
Mills and Textile Factories.

Towns, advantages of life in, 28,
and family-life, 108, and health,
28, 108; growth of, 10, 27,
insanitary conditions in, 11;
measures for improvement of, 11;
political influence of, 28, social
influence of, 28.

Trade. *See* Export and Import Trade.

Trade-Boards, 104.

Trade-Guilds, 45.

Trade Unions, afford little protection
in India, 114; difficulties in the
way of, in India, 189, Federation
of, in India, 191, in :—(a) Bengal,
190, 191, (b) Bombay Presidency,
189-190, (c) England, 104, 105,
113; proposed legislation for, in
India, 169; slow development of,
in India, 19, 112, 197.

Traditional Occupations in :—(a)
Bengal, 42, (b) Bihar and Orissa,
54, (c) Bombay, 48, (d) Central
Provinces, 66, (e) Madras, 63, 64,
(f) United Provinces, 58-60.

Tribes, 41, 53, 54, 61, 66, 75, 87.

Truck Acts, 115, 159.

United Provinces, causes of migration
from, 89, 90, extent of rural
industries in, 58-60; geographical
features of, 56, labour supply of,
90; principal castes of, 57, 58;
principal organized industries of,
87-89; proportion of different
castes in organized industries of,
90; power of caste-panchayat in,
60; typical villages in, 56, 57.

V

Ventilation, of factories, 132, 156,
157, 158, 159.

Village industries, 3, 4, 33, 38.

See also Rural Industries.

Villages, and migration, 15; caste-
organization in, 38, composition of
labour in, 37, effects of Industrial
Revolution on, 29, exodus from, in
the United Provinces, 89, 90; in :—
(a) Bengal, 40, (b) Bihar and
Orissa, 52, 53, (c) Bombay, 47, (d)
Madras, 62, (e) United Provinces,
56, 57; industrial organization of,
4; life in, 45, 106, 110, occupations
in, 38; some South Indian, 3n.

W

Wages, absence in India of standard,
112, disappearance of primitive
methods of payment of, 5, drawn
by contractors, 113, effect of mobility
of labour on, 29, inquiry into,
by Assam Labour Committee, 149,
in —(a) jute mills, 135, (b) textile
factories, 123, 124, (c) tea-industry,
150, of agricultural labourers in.—
(a) Bengal, 73, (b) Bihar, 3, (c)
Punjab, 3, (d) United Provinces, 3;
rise in standard of, 29.

Weavers, castes of, 42, 47, 54, 55, 58,
66, 76, 77.

See also Traditional Occupations.

Women, and medical aid, 20, 160, 165, and employment in mines, 166; disadvantages arising from employment of, 125, 126, Dr. Nair on employment of, 157, employment of, in Bombay textile factories, 124, 125, employment of, in Madras textile factories, 141, inquiry into maternity benefits for, 159, hours of work of, in Bombay textile factories, 123, labour of, in Bengal industries, 159; nature of work done by, in jute mills, 133, night work of, prohibited, 158; numbers employed

in Indian mines, 166; possible limitation of, in Indian mines, 165, proportion of, in:—(a) Bombay mills, 122, (b) jute mills, 133, 136.

Workmen's Compensation, 114, 140, 167, 182.

Workmen's Compensation Act, 160, 168.

Works Committees, 115, 171, 174, 196, 199.

Y

Young Men's Christian Association, 185, 195.

Printed by V. P. Pendherkar, at the Tutorial Press,
211a, Girgaon Back Road, Bombay No. 4
and
published by Humphrey Milford, at the Oxford University Press,
1719, Elphinstone Circle, Fort, Bombay

